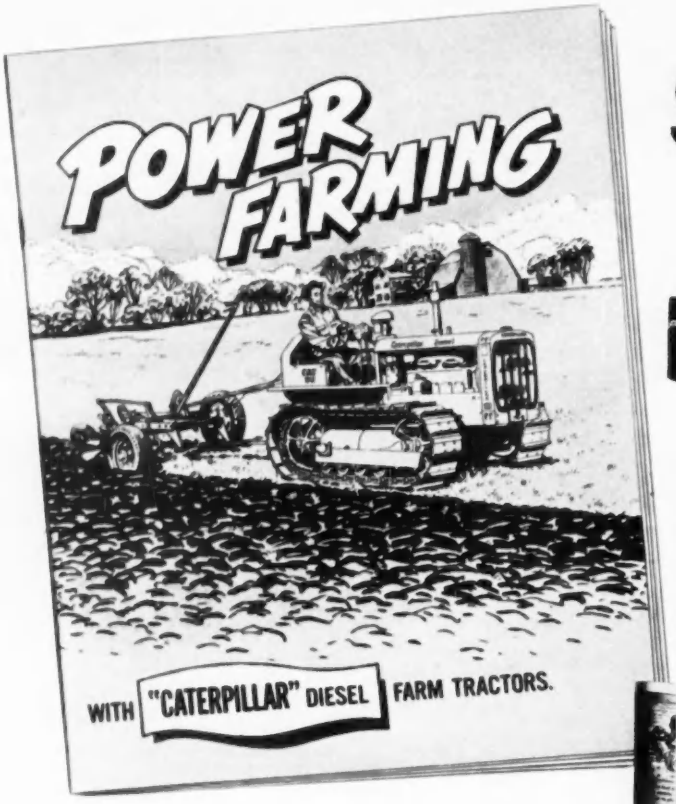
American Fruit Grower

NOVEMBER · 1952

· FRUIT FARM COLD STORAGE ·



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NOVEMBER 1952
VOL. 72 No. 11

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E. K. GOULD ELDON S. BANTA
M. A. FRAZIER
Washington Correspondent LARSTON D. FARRAR
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EDWARD L. MEISTER

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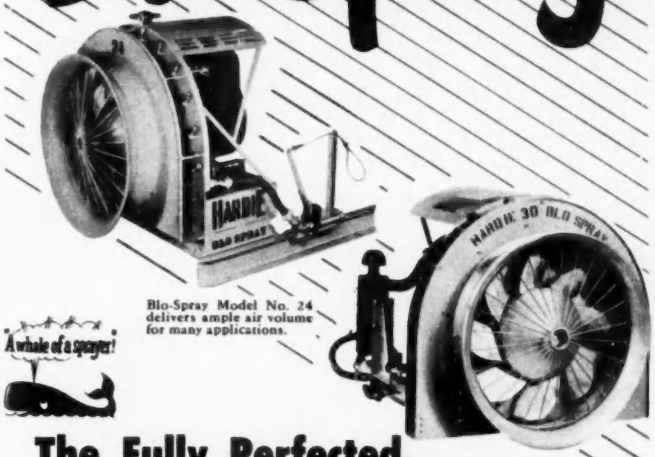

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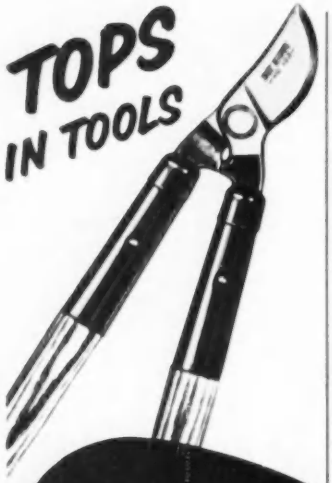

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LETTERS TO THE EDITOR

Word for Birds

Dear Sir:

The average farmer is very unhappy when he sees robins, catbirds, or mockingbirds in his cherry trees or strawberry bushes before the fruit is gathered. Yet he was glad enough to see them there in the spring and early summer, eating the insects that would have seriously damaged his crop.

A good workman is worthy of his hire, and the birds certainly worked hard to save the fruit, albeit unconsciously. They should be entitled to their share and wages for the help they gave.

But if the farmer cannot afford to pay in such coin, he should provide something they will like even better—the red mulberry, for example. A small patch of these planted near his orchard will protect the more valuable fruit and pay off the helpers without which he might have had a much smaller crop.

Canton, Mass. James F. Bent

Hail Beats Cloud Seeders

Dear Sir:

In a recent issue you published an article entitled, "Cloud Seeding Stops Hail." At the time I read this article I was tempted to write you to refute several statements.

During the 1952 season several hail storms have visited the area, and I think it no more than fair that you should report to your growers that cloud seeding by airplane failed to stop hail in the Medford area.

In the 1951 season the insurance company I work for paid one hail loss and inspected several other orchards with hail damage, but no insurance. In 1952 we paid two fairly heavy hail losses in the Medford area approximately 15 miles apart. The orchards between these were more severely damaged.

For proof, here is a photograph showing pears damaged by hail on September 4 at Medford.

Spokane, Wash. Reg Airey

S. A. Beach

Dear Sir:

I have read with great interest the article in a recent issue concerning my father, Spencer Ambrose Beach, which was written by Mr. Eustace.

A minor error exists in the dates underneath the picture of my father. My father remained active until his last illness which was not of long duration. He was still acting as head of the department of horticulture and forestry at Iowa State College, and acting vice-dean of that institution at the time of his death on November 2, 1922. This factual information is of minor importance, and the article itself is splendidly done.

Chicago, Ill. J. E. Beach

Orchard Fork Lifts—A New Development

Dear Editor:

In one of your summer issues, I noted your very interesting article entitled, "Don't Lift, Don't Carry." If possible I would like to have more information with regard to the manure shovel on a Ford tractor that was adapted as a fork lift for use in the orchard.

I also note reference to a grower that is considering the purchase of a fork lift attachment for his Ford tractor to load pallets in the orchard. We have endeavored to obtain information locally, but the Ford dealers apparently are not aware of this attachment.

Could you contact these growers and learn where they obtained the fork lifts to be used in the orchard and also find out what price they paid as well as the capacity of the loader? It is our intention to load five layers, six each, or a total of 30 one-bushel field crates per pallet.

Allentown, Pa. T. H. Garrison

In answer to reader Garrison's questions, Jonathan Davis of Sterling Junction, Mass., writes: "We obtained our manure shovel from Lord Manufacturing Co., Lancaster, Mass. The adaptation for loading apples was also made by the same company. The cost was in the vicinity of $300, but that was five years ago. Mr. Garrison's proposal to carry 30 bushel field crates is more than we can handle with our Ford tractor, except under very favorable conditions. The ideal load we feel is 24 crates (six to a layer) or in very rough going, 18. While the machine will carry 30 or more, it is difficult to steer and harder to manage in every way."

F. G. Reiter of Mars, Pa., also brings further light to bear on this situation. He writes: "We were able to buy a fork lift attachment for a Ford tractor to load pallets in the orchard from the West View Garage, our local Ford tractor dealer. The cost is approximately $775.00, and it has a capacity of 2,000 pounds."—Ed.

Freezing Chart for Fruits

Dear Editor:

You have given the men a valuable piece of information by printing the spray compatibility chart. My husband has framed his copy.

You gave women excellent assistance with the freezing chart which appeared in the August issue. In order to reach more women, why not print freezing charts and on the other side recipes and price them by the hundred, so that roadside stands may have them to pass along to customers?

Corfu, N. Y. Mrs. Herman Ehmann

We are already preparing the "Freezing Chart for Fruits" which will be printed on heavy paper suitable for posting in the roadside market and for passing out to customers. It will be ready in time for the 1953 season. Thanks!—Ed.

CO-AUTHORS WIN GOURLEY AWARD

THIS is the second year that the Joseph Harvey Gourley award in Pomology has been presented and, strangely enough, this is the second year that a former student of the late Dr. Gourley received the award. In 1951 two former students received medals and cash prizes.

This year Leon Havis, who not only was a student but also worked under Dr. Gourley for nearly a dozen years, and Anna L. Gilkeson (now Mrs. Brooke Meanley) shared the honor, each receiving an engraved medal and a cash prize.

Established by AMERICAN FRUIT GROWER to perpetuate the memory

Leon Havis Anna L. Gilkeson

of J. H. Gourley, former president of the American Society for Horticultural Science, chief in horticulture at Ohio State University, and editorial advisor to AMERICAN FRUIT GROWER, the award is presented to the authors of the outstanding paper on pomology printed in the ASHS Proceedings. Selection of the paper is made by the committee on awards of the ASHS at each annual meeting.

Horticulturists Havis and Gilkeson, both of whom are in the Bureau of Plant Industry, Soils, and Agricultural Engineering, USDA, Beltsville, Md., were co-authors of a paper covering the interrelationships of nitrogen and potassium fertilization and pruning practice in mature peach trees.

Among other responses, their research showed that improvement in the yield of mature peach trees resulted from raising the potassium level of the leaves; that earlier fruit ripening occurred in moderately pruned trees and with low potassium in contrast to later ripening in heavily pruned trees and high potassium; that heavy pruning usually resulted in increased potassium in the leaves; and that increased nitrogen applications resulted in reduced leaf potassium content where no applications of potassium were made.

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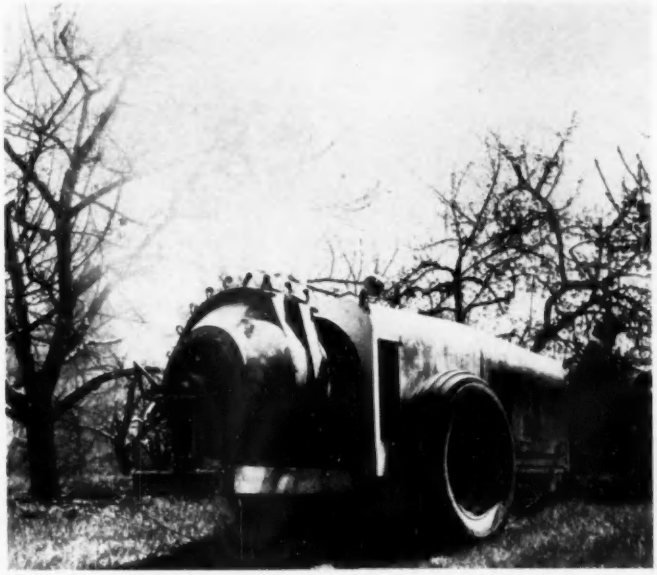

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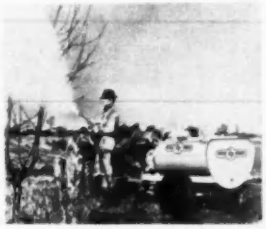

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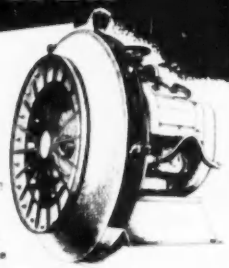

Mr. Elliott W. Smith
Kindertrook, N. Y.

Dear Elliott:

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In my opinion it is "tops" in economy and efficiency. (Mine is mounted on a Meyers 35 G. P. M.) It saves 2 men's time, enabled me to spray our 85 acres of orchards alone, most of the time spraying both sides at one time.

It saves material as I used about 1/3 less than the year before and produced a beautiful 95% perfect crop. The Aqua-Jet Blower effects perfect insect and disease control and an outstanding finish and, in fact, its performance equals that of a much more expensive airblast machine.

I sure am glad I own an Aqua-Jet Blower.

Sincerely yours,
Robert S. Goold

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CALENDAR OF COMING MEETINGS AND EXHIBITS

Nov. 5-7—Florida State Horticultural Society 65th annual meeting, Soreno Hotel, St. Petersburg.—Ernest L. Spencer, Sec'y, Bradenton.

Nov. 6-7—Minnesota Fruit Growers Association and Wisconsin State Horticultural Society joint annual meeting, Hotel Winona, Winona, Minn.—J. D. Winter, Sec'y, Minn. Society, Mound, Minn.

Nov. 19-21—Iowa Fruit Growers Association annual meeting, Memorial Union Bldg., Iowa State College, Ames.—Mrs. C. R. Thompson, Office Assistant, State House, Des Moines.

Nov. 20-21—Oregon State Horticultural Society 67th annual meeting, Memorial Union Bldg., Oregon State College, Corvallis.—C. O. Rawlings, Sec'y, Corvallis.

Nov. 20-21—Montana Horticultural Society 55th annual meeting, Montcahto Clubhouse, Polson.—R. O. Young, Sec'y, Missoula.

Dec. 1-3—New Jersey State Horticultural Society annual meeting, Claridge Hotel, Atlantic City.—Arthur J. Farley, Sec'y, New Brunswick.

Dec. 2-4—Michigan State Horticultural Society annual meeting in joint session with American Pomological Society annual meeting, Civic Auditorium, Grand Rapids.—H. D. Hootman, Sec'y, East Lansing.

Dec. 2-6—Vegetable Growers Association of America 44th annual convention, Hillsboro Hotel, Tampa, Fla.—H. D. Brown, Sec'y, Hort. Dept., Ohio State University, Columbus 10, Ohio.

Dec. 4-5—Connecticut Pomological Society annual meeting, Hotel Bond, Hartford.—S. P. Hollister, Sec'y, Storrs.

Dec. 4-5—Kansas State Horticultural Society 86th annual meeting, Hutchinson.—H. L. Drake, Sec'y, Bethel.

Dec. 4-5—Tennessee State Horticultural Society 47th annual meeting, New Southern Hotel, Jackson.—A. N. Pratt, Sec'y, 708 Employment Security Bldg., Nashville 3.

Dec. 8-9—First Annual Washington State Apple Show, Pacific Power & Light Auditorium, Yakima.—Orville Ormiston, Sec'y, Route 5, Yakima.

Dec. 8-10—Washington State Horticultural Association annual meeting, Yakima.—John C. Snyder, Sec'y, Pullman.

Dec. 9-10—Peninsula Horticultural Society annual meeting, Dover, Del.—Robert F. Stevens, Sec'y, Newark, Del.

Dec. 9-11—Illinois State Horticultural Society and Illinois Fruit Council annual meeting, Broadview Hotel, East St. Louis.—Harvey B. Hartline, Sec'y, Carbondale.

Dec. 12-13—Utah State Horticultural Society annual meeting, Newhouse Hotel, Salt Lake City.—Gene H. Oberly, Sec'y, Logan.

1953 Meetings

Jan. 5-6—Maryland State Horticultural Society 55th annual meeting, Hotel Alexander, Hagerstown.—A. F. Vierheller, Sec'y, College Park.

Jan. 5-6—Missouri State Horticultural Society annual meeting, Daniel Boone Hotel, Columbia.—W. R. Martin, Jr., Sec'y, Columbia.

Jan. 6-8—Massachusetts Fruit Growers Association annual meeting, Worcester.—A. P. French, Sec'y, Pomology Dept., University of Massachusetts, Amherst.

Jan. 6-8—Western Washington Horticultural Association annual meeting, Fruitland Grange Hall, Puyallup.—C. D. Schwartze, Sec'y, Puyallup.

Jan. 8-9—Kentucky State Horticultural Society annual meeting, YMCA Bldg., Louisville.—W. W. Magill, Sec'y, Lexington.

Jan. 13-15—Maine State Pomological Society annual meeting, Lewiston Armory, Lewiston.—Frank McDonald, Sec'y, Monmouth.

Jan. 14-16—New York State Horticultural Society annual meeting, Edgerton Park, Rochester.—D. M. Dalrymple, Sec'y, Lockport.

Jan. 14-16—Indiana Horticultural Society annual meeting, Murat Temple, Indianapolis.—R. L. Klackle, Sec'y, Lafayette.

Jan. 19-21—Virginia State Horticultural Society 57th annual meeting, Hotel Roanoke, Roanoke.—John F. Watson, Sec'y, Staunton.

Jan. 21-23—New York State Horticultural Society eastern meeting, State Armory, Kingston.—D. M. Dalrymple, Sec'y, Lockport.

Jan. 26-28—Pennsylvania State Horticultural Association annual meeting, Yorktowne Hotel, York.—John U. Ruef, Sec'y, State College.

Jan. 26-30—United Fresh Fruit & Vegetable Association 49th annual convention, Los Angeles, Calif.—Convention Headquarters, 704 Market Court, Los Angeles 21.

Feb. 4-6—Ohio State Horticultural Society annual meeting, Deshler-Wallick Hotel, Columbus.—C. W. Ellenwood, Sec'y, Wooster.

Feb. 5—Vermont State Horticultural Society half-day small fruit and vegetable meeting in conjunction with Vermont Farm Products Show. Annual society meeting to be held first week of April.—C. Lyman Calahan, Ext. Hort., Burlington.

Feb. 16-18—National Peach Council annual meeting, Spartanburg, S.C. — M. J. Dorsey, Sec'y, 1502 S. Lincoln, Urbana, Ill.

Autumn Crispness in May with

C-A STORAGE

Growers' co-op finds controlled atmosphere storage insures firm, juicy apples which sell at a premium

By WILLIAM GILMAN

ON OCTOBER 2, 1951, 11,000 boxes of Macs were "put to sleep" in the brand new controlled-atmosphere cold storage room of the Shoreham (Vermont) Co-operative Apple Producers Association. The association had compared advantages with disadvantages and decided $22,000 for such an ultramodern storage was worth spending.

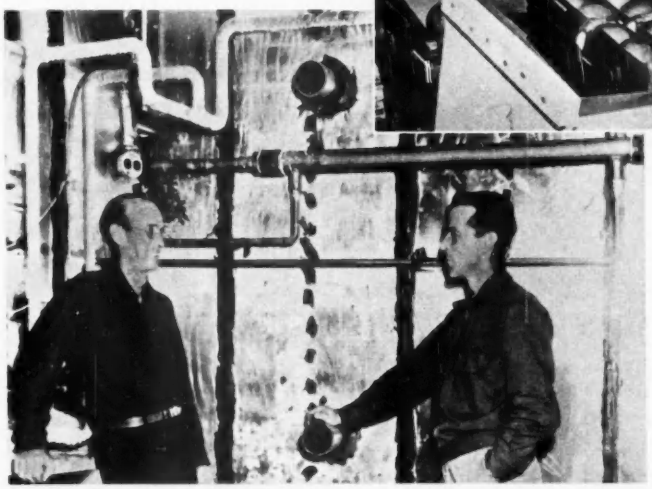
For six and one-half months the fruit remained inside the sealed room in a state of suspended animation. Its "breathing" was brought practically to a standstill by special apparatus which kept the oxygen supply low without allowing carbon dioxide to build up.

On April 17, 1952, the "gas chamber" was opened and after grading and packing the orchard-run fruit first shipments began to the co-op's distributor serving the New York City market.

The apples lived up to the best hopes of the Shoreham co-op members, bringing twice the price of conventional storage fruit, and buyers were eager for them. The last shipment was packed out on May 18 and could have been held considerably longer.

Obviously, the new storage method paid off nicely for this apple growing group which, with its alert co-op manager, Bill Stalker, has built up a reputation for packing quality fruit. Through progressive methods it has prospered even in years of surplus apple crops and lowered prices.

Concentrating on quality, the Shoreham Co-op tray-packs part of its members' crops, receives up to $2 extra per box.



Shoreham Co-op president John C. Cook (left) and manager William A. Stalker inside their C-A storage. Air leaves through upper duct, re-enters through lower one after passing through caustic soda solution which "washes" out excess carbon dioxide.

The controlled-atmosphere method was first developed in England. Research headed by Dr. R. M. Smock at Cornell resulted in the first commercial storages of this type in New York 10 years ago. The Shoreham group has the first such storage in the important Vermont-Champlain Valley apple growing region.

This past summer, as a result of its successful experience, the co-op decided to double its capacity for controlled-atmosphere storage by converting one of its conventional storage rooms. Total storage capacity is about 60,000 bushels.

The reason "C-A" apples bring such premium prices is easy to understand. They come out of storage in firm, juicy, prime condition. And their "shelf life" is greatly extended—they last over twice as long as ordinary storage apples before becoming unmarketable. A few of the Shoreham apples were retained for test purposes in the gas room. In late June they were still prime, the stems still showing green upon being snapped.

(*Continued on page 22*)

Allan Bros. warehouse in Naches, Wash., to which apples are rushed directly from the Allan orchards. Packing room is low portion of building, cold storage is to right.

"We Wanted To Treat Our Fruit Right!"

That was the aim of these western growers who actually helped build and now manage their own fruit farm cold storage plants

By PHILIP C. FRESHWATER

IF A GROWER harvests 40,000 boxes of apples a year, he can profitably run his own cold storage and packing plant.

That is the conviction of Hulet McAnally, whose second fruit ranch cold storage plant stands on his land along the Eschbach Road just out of Yakima, Wash. Two other fruit ranch warehouses have gone up in the Naches area not far from McAnally's, and both of them are based on his successful operation.

The Allan brothers, Robert, John, Alex, and Walter, built their concrete block building in the summer of 1951; and the Upper Naches growers, Otto Knight, William Jones, John Paul Jones, and Barney Hahn, finished theirs in the spring of 1951.

The Upper Naches Growers' plant is 112x54x21 feet, designed to store 44,000 boxes of apples. It, like the others, is of concrete block and has a truss roof, eliminating the need for interior posts and walls.

Why did these growers, all busy with the tough job of raising fruit, take on the warehousing problem?

"To be sure of a place to store our fruit," the four Upper Naches growers said. The only commercial warehousing available was so overloaded that orchard trucks waited hours to unload fruit—and when the crop was heavy the latecomers might not find room.

"So we could treat our fruit right," the Allan brothers said. "With the cold storage right in the orchard, our fruit is off the trees and in storage right away."

"To treat the fruit properly, to be sure of storage, and to save money on storage," McAnally said.

McAnally's warehouse is the largest of the trio. He has two rooms, one holding 52,500 boxes and the other 47,000 boxes. The 47,000-box room was added recently, after the first room proved successful. Before moving onto his present place, McAnally had built and operated his own cold storage on his former property in Naches Heights.

"Mine was one of the first up there," he said, "and the experience proved to me and to other growers that it was feasible for a grower to store and pack his own fruit."

McAnally does not broker his own fruit but sells through two established houses, one in Tieton and one in Yakima, and to other houses that buy on occasion.

"Growing and warehousing is enough for anyone to undertake," he said. "The broker earns his money, particularly in the hard years. And when a short crop, good selling year comes along, I co-operate with the brokers who pulled me through the bad years."

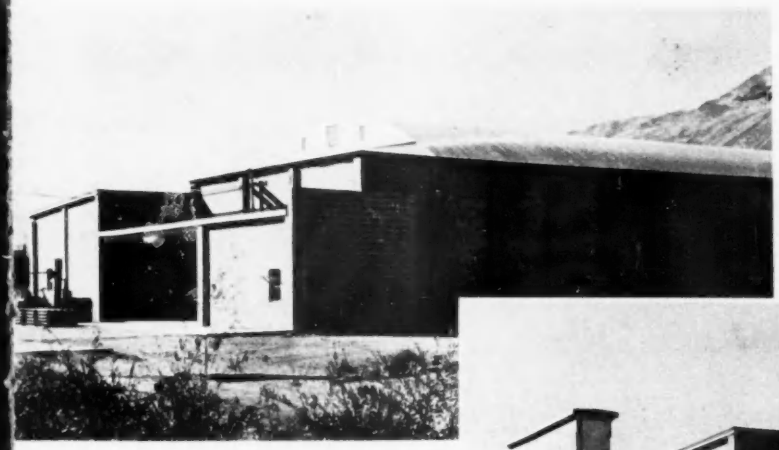
He was designer and builder of his warehouse, pouring the concrete footings—running eight feet above ground on the older room—and hiring the specialty work, such as block laying and the roof trussing.

The regular ranch crew put in the carpentry work, ceilings, door frames, etc., and the air ducts. The plywood used in the ceiling was bought when the Naval Station at Farragut, Idaho, was salvaged.

For insulation, McAnally used three inches of Fiberglas in the walls and eight inches of rock wool blown into the ceiling gap. On the walls a one and one-half-inch Fiberglas bat was dipped in asphalt and pasted to the inside of the block wall, a vapor seal was laid over the inside of that, and another layer of one and one-half-inch Fiberglas, with joints broken, was laid over the vapor seal.

"It has worked perfectly for us," he said. "After we experimented with the air ducts of the cooling system, we have held the temperature throughout the rooms almost exactly equal."

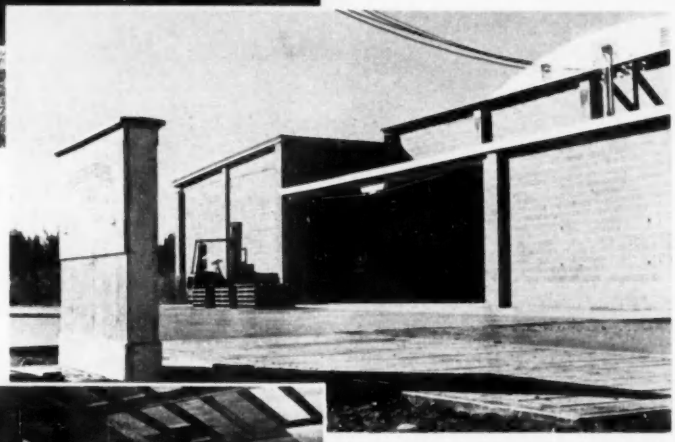
McAnally's regular ranch crew does all the warehouse work except for packing out, when he hires more help. There is no refrigeration engineer on the place, but whenever any



Above—The Upper Naches Growers storage, designed to hold 44,000 boxes, is similar in construction to McAnally's.

Above, left—Interior view of the Upper Naches Growers cold storage room, showing air conditioning ducts across center of room roof and height to which filled boxes can be stored on pallets.

All photographs by Jack R. Whitnall



Truck scales (left foreground) facilitate loading of trucks to proper weight at Upper Naches Growers warehouse.

Hulet McAnally, standing beside air blower unit in storage room adjacent to his warehouse in Naches district near Yakima. Note eight-foot concrete footing on which concrete blocks were laid.

Left—Closeup of Mr. McAnally inspecting a pump unit and motor during a busy harvest season at his warehouse.

work is needed on the cooling system he calls an independent from town.

"We have never had a real emergency so far," he said, "only the kind of work that if he can't come today, tomorrow will do as well. Of course, we check the equipment every night—I live only a few steps away—but so far everything has been fine."

McAnally has an engineer check over the equipment in the spring when it is shut down after the last apples are moved. "That way we have it all ready to go when the apples start coming in," he said.

Two construction items mark McAnally's house as unusual—instead of using cinders under the flooring he has 18 inches of coke screenings, and the flooring is an asphalt paving.

"It stands up better than concrete," McAnally declares. "The concrete we have on the apron flakes, but this," and he tapped his foot against the warehouse floor, "never does."

Oil, if left on the floor, will break the binder and pit the flooring. "But when we discovered that," McAnally said, "it was a simple matter to be careful and we haven't had any trouble since."

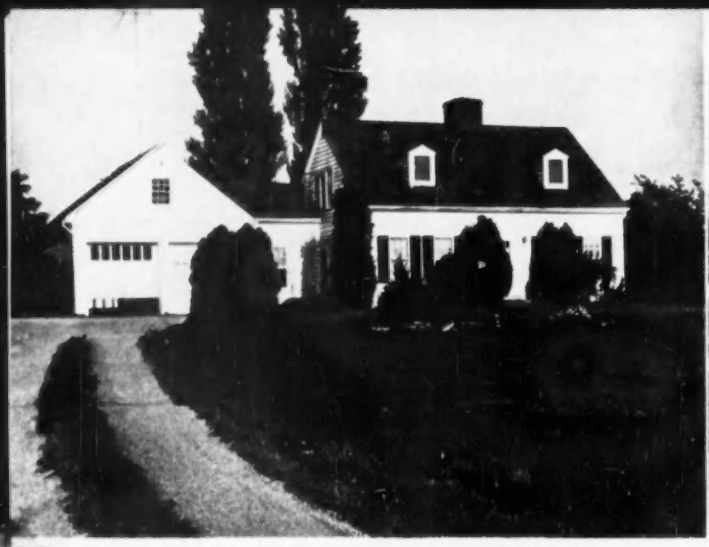
McAnally is finicky about the warehouse, its equipment, and his fruit. Every tool, from hammer to fork lift truck, must go back into place the minute a man is through using it. And while using it, the man had better handle it properly or he will learn, quickly.

McAnally insists on having his fruit handled gently. "That is one reason I have my own place," he said.

His fork lifts don't run quite so fast as in other plants, but "the fruit is put down gently and boxes aren't spilled." Fork lifts, he declared, have done much to reduce bruising of apples in warehouse handling. "With the boxes on pallets," he said, "the truck puts them down firmly and gently in one spot. In the old days, the handlers would get to throwing the boxes into place."

When the Allan brothers decided

(Continued on page 21)



Landscaping the orchard home requires foresight in its design. Simple plantings that require minimum attention, as used here by C. W. Ellenwood, Wooster, Ohio, are usually most dependable.

Signs should be made to appear as a built-in feature of the landscape. This neon sign encourages customers to stop day or night.

PLANT TO BEAUTIFY
Your Orchard Home and Market

By ELDON S. BANTA

LOOK! Isn't that an attractive place! Beauty is the prime creator of attention. Almost instinctively a man's eye will follow the graceful steps of a beautiful woman. Ripe, golden and scarlet fruits dangling from a tree in autumn's breezes are classifical objects of beauty. Flowers in full dress defy any eye to turn unmindfully away. Trees towering in graceful form lend cool, pleasant shade. Flowers and shrubs in hundreds of shapes and forms express themselves beyond imagination and in appropriate settings lend charm to surroundings.

What has all this to do with fruit growing and with fruit growers? It is very simple. If the grower, who is in such intimate contact with nature isn't proud of his home, his market, the environment in which he lives, who else is going to be? He must feel it his responsibility to create in his environment a semblance of earthly beauty. In planted landscape he must inject color to attract even the least observant. In undulating and systematic contours he must catch the eye and lead it to an important object.

Strength and refinement can be found in the choice of various plant forms. His skill in the art of beautification is measured by how near he comes to accomplishing these objectives and giving a sense of balance to his entire planted landscape.

The fruit grower, in many respects a horticulturist, must find beauty as well as utility in plant life. When he combines his concept of beauty with that of usefulness he has come nearer expressing his character in his environment than any other person. The results are not only soul-satisfying but fruitful.

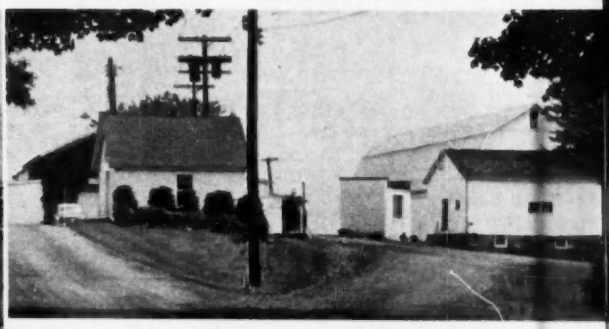
Each fruit grower has a product to sell. Why should he not attract people to his home or market? When symmetrically landscaped these places say to the passer-by, "Welcome! Come in and see what I have!" Many growers have found interesting ways to do this, and it pays dividends. Yet, there are many untried ways to beautify our American orchard homes and markets.

It is beyond the scope of this article to give detailed information on landscaping methods but some of the accompanying pictures may show how a planting problem similar to yours has been handled. If you want to go about the business of landscaping your home grounds by obtaining some technical knowledge on the subject before you proceed, one of the easily understood references listed on page 18 will help you. THE END

Shade trees add beauty and comfort to an orchard home setting. This stately home with its lovely background of trees is that of orchardist John Chandler, Sterling Junction, Mass.

Even a limited planting area can be made uniquely attractive. Hill High Orchards, Round Hill, Va., have a small boxed-in terrace and use a minimum of plants for year-round color.

Vines serve to dress up old buildings and storage sheds, as in the case of this tool shed - spray materials storage on Thornburg Orchards, Ashland, O.



Drives are major problems in landscape design. Sodus Fruit Farm, Sodus, N. Y., keeps theirs wide and clear by using low shrubs and evergreens and a low hedge (extreme right).

The entrance to the orchard salesroom should be irresistibly attractive. Wampler Fruit Farm, Dayton, Ohio, has successfully accomplished this ideal with a neat and colorful rock garden planting.

The first impression is important. Lorn Doud, Wabash, Indiana, has obtained a pleasing entrance to his orchard by using various types of evergreens.

A well-kept carpet of grass is always an attraction. At Twin Oak Orchards, Mount Vernon, Ohio, care of the lawn in front of orchard home and sales building goes hand in hand with care of the orchard.

How to Overcome High Building Costs in Creating

A LIVABLE ORCHARD HOME

By R. T. MEISTER

BUILDING a home is a particular problem for the orchardist whose natural bent along horticultural lines gives him a keen appreciation of rural beauty. He wants his home to be pleasing to the eye and to complement the natural landscape. But high costs and the shrinking value of the dollar make it hard to develop a house with the desired space, conveniences, and architectural detail.

In many villages and rural areas there are abandoned houses and barns which often can be moved and remodeled into a home at considerably less than it costs to build a new one.

Above—The old cow barn which took our fancy because of its tremendous possibilities for comfortable rural living.

Left—The barn en route to its new location approximately a mile distant.

Below—The remodeled building on its new foundation and with dormers added. Suitable landscaping will complement background and give the feeling of permanence typical of rural settings.

If the remodeling is carefully planned and the services of an architect are secured at nominal cost, these old structures can be changed from eyesores to shining examples of sound rural architecture.

There are many pitfalls in remodeling old buildings, as experience will testify, but the gain seems worth the chance. It was this line of thinking that stimulated the creation of a new orchard home on a 10-acre orchard site we purchased for experimental purposes in 1951. Thorough examination of an unused barn on an adjacent farm showed the timbers to be free from rot and decay and the native chestnut siding still in excellent condition.

Surprisingly enough, it was learned that moving this building, or any other for that matter, was not the costly job we feared it would be. This information plus thorough discussion with the house movers gave foundation to the idea that many buildings not now used can be easily moved, provided a certain amount of imagination and perseverance are brought into play. In three weeks' time the newly-purchased "retired" barn was raised, put on wheels, and rolled nearly a mile distant across fields to its new location.

In the meantime arrangements were made with a local contractor to build a foundation and to install partitions, windows, and doors to complete the changeover from barn to orchard home. First the excavation for the foundation was dug, then the barn was rolled over the excavation, footings were poured, and masonry walls built to meet the walls of the

(Continued on page 18)

THE ROMANCE OF FRENCH HYBRID GRAPES

The fascinating story of the development of these hybrids goes back to our own Southwest at the turn of the century and the painstaking work of T. V. Munson, American savior of the French grape industry. Photograph shows two-year old French hybrid Seyve Villard 18-402.

By PHILIP M. WAGNER

IN a recent issue of AMERICAN FRUIT GROWER, Guy Trail of New Haven, Mo., bestowed a deserved tribute on T. V. Munson, one of the great creative figures of American horticulture.

Mr. Trail, in writing about the growing vogue in this country of French hybrids, stated, "We have been growing varieties identical in blood lines for more than 50 years in Texas and other adjacent states"—the hybrid grape varieties developed by T. V. Munson.

True! And the story is a fascinating one.

In 1876 young Munson came to Denison, Tex., to make a home for himself on the bluffs of the Red River. His interest in the improvement of native grapes had already been kindled by a sympathetic instructor at an agricultural school in Kentucky. Becoming familiar with the region around Denison, he was astonished to discover a profusion of wild grape vines of species unfamiliar to him and indeed to botanical science.

Here, for example, were found examples of the species *Vitis aestivalis*, native to the southern Appalachians, and its southwestern subspecies *Vitis Lincecumii*. Here also were vines of the species *Vitis Berlandieri*, native to the "black waxy" soils of the Southwest and the one species that does well on strongly calcareous soils. Here, to name the two other species of principal importance in breeding, were *Vitis riparia* whose habitat is the entire Mississippi Basin and particularly the deep rich soils of the river valleys, and, by contrast, *Vitis rupestris* which is most at home in rocky, arid uplands.

Mr. Munson's subsequent work followed three roughly parallel sources:

1) He plunged into the scientific task of describing and classifying this wealth of little-known botanical material.

2) He became a practical grape breeder, producing thousands of hybrid seedlings representing an enormous range of combinations not only between the pure species but between vines of these species and the domesticated grape of Europe, *Vitis vinifera*.

3) He became virtually the savior of the principal agricultural industry of France, wine growing. Ironically, his fame is greater in Europe than in his own country.

As to his work as a practical grape breeder, his great achievement was to challenge the dominance of the wild species *Vitis Labrusca*, which is responsible for the pronounced musky or "foxy" aroma and flavor of most of our standard cultivated grapes, such as Concord, Niagara, and Catawba. By using the unfamiliar wild species mentioned above, Munson produced a whole range of sweet, delicious, pure-flavored varieties — early grapes, mid-season grapes, late grapes, blue grapes, pink grapes, golden grapes. From his thousands of hybrid seedlings he named and propagated perhaps a hundred.

Critical as he was in his selection, he could not anticipate the behavior of these striking new fruits in the almost endless variations of the American soil and climate. Not more than a dozen of his creations have survived the severe tests of time and the practical grower. But to have made as many as a dozen permanent contributions to the fruit growing resources of America is in itself an immense achievement.

Now we come to the strange story of Munson's relations with France. It so happened that the period of Munson's greatest activity was also a period of tragedy for wine growing in France. A pest of American origin, a root louse known as the grape phylloxera, had somehow been introduced into the French vineyards. The classic wine grapes of France, all of them varieties of the vinifera species, proved hopelessly vulnerable to the pest, and within a decade the vineyards had been decimated and a great agricultural industry lay in ruins.

But the wild species of the United States, particularly those of the Southwest, are relatively immune to the grape phylloxera. Soon Munson was in correspondence with leading French experts who came all the way to Texas to consult with him.

Reconstruction of the French grape industry took two forms. Phylloxera-resistant varieties were found which proved suitable for rootstocks on which scions of the classic French wine varieties could be grafted. This constituted the primary work of reconstruction and is the role for which Munson—though he did not speak French and never visited France—was rewarded by being made a Chevalier of the Legion of Honor.

Alongside this work with rootstocks there began another work—that of crossing suitable pure-flavored, non-foxy American varieties with the

(*Continued on page 26*)

State NEWS

• Wenatchee Growers Protest FTC Action Against Appalachian

• Dr. M. B. Cummings of Vermont Passes Away

WASHINGTON—The Wenatchee Valley Traffic Association on October 6 passed a resolution in protest against Complaint No. 6041 of the Federal Trade Commission, as a presumptuous and unreasonable assault on a sizable segment of a major United States agricultural industry.

Complaint 6041 of the FTC charges that Appalachian Apple Service, Inc., Martinsburg, W. Va., and five processor groups in the Appalachian area conspired to unduly strengthen and stabilize prices for apples for processing. Officers of Appalachian Apple Service are to appear before the FTC examiner on November 17 to show cause why they should not cease and desist what the FTC calls "entering into an understanding, agreement and combination to restrict trade" by fixing prices for apples to the prejudice of the public.

The resolution points out that Appalachian Apple Service is not, as alleged in the complaint, "a trade association of its members and processors," since only growers are members of Appalachian, and that Appalachian's principal reason for existence is improvement of apple markets and that actions taken by Appalachian with the five processors have been to inform and bring forth the facts and circumstances, to the end that their grower members might do a more intelligent job of marketing.

The resolution also brings out the fact that grower members of Appalachian Apple Service have for many years disposed of apples for processing at prices below parity as determined by the USDA, and the actions cited in the complaint are an effort on their part to help themselves in the American way through more intelligent marketing. (See Washington Fruit Letter on page 15.)

Another resolution of significance to the apple industry was passed by Cowiche Growers, Inc., Yakima. This resolution, aimed at stopping the downward trend in the consumption of apples, asks for an additional assessment on apples for the specific purpose of advertising the health and nutritional values of this fruit. The resolution asks that steps be taken to amend the present State Apple Advertising Act to increase the assessment from three cents per standard box to six cents per standard box.

It was pointed out in the resolution that the trend in consumption of apples has decreased from 87.7 pounds per capita in the early years of this century to 35 pounds per capita in 1944-48, that the cost of advertising media has increased 46 per cent since 1940, that the number of families to be approached through advertising has increased 27 per cent during the same time (from 35 to 44.5 million), that competition from other food advertisers stresses the health and nutritional values of their products, that consumers never before have been more health conscious than they are today in the selection of food, that total expenditures for all advertising in the U.S. have increased from $2 billion to $6 billion since 1940, and that the $1 spent pre-war by the growers must be doubled in order to maintain the same selling impact on consumers.

The resolution also asks that steps be taken immediately by the Washington apple industry to secure the co-operation of all of the other commercial apple producing areas of the U.S. in a joint program of advertising the health and food value of apples, with the ultimate objective of securing the contribution of each of these production areas on an equal per bushel basis to a fund to be utilized for apple advertising.

OREGON—Thursday and Friday, November 20 and 21, are the dates of the Oregon State Horticultural Society annual meeting, to be held at Oregon State College, Corvallis.

High on the list of subjects which a poll of 81 grower-members, conducted by Thomas J. Harper, Junction City, society president, and Carl Robertson, program chairman and field superintendent of the Eugene Fruit Growers Association, indicated should have priority are chemical residue and off-flavor effects of treating crops with insecticides, new methods of insect and disease control, progress report on uses of fertilizers, prevention of frost damage, and the economic outlook for horticultural crops.—*C. O. Ratcliffs, Sec'y, Corvallis.*

CALIFORNIA—The prune industry is getting ready to push their product. Growers and packers have drawn up a five-year industrywide promotion program under a state marketing order. The first year they will assess themselves $375,000.

Most of the government export subsidy programs on foods are expiring and members of the trade think they see a tendency for the government to shy away from going back into any such programs. Last year such programs existed for winter apples and pears, grapefruit, oranges, lemons, honey.

The California Walnut Growers Association, controlling 80 per cent of the pack, opened prices to the trade on 1952 crop f.o.b. per pound delivered carloads as follows: "Diamond" Large, 35 cents; "Diamond" Medium, 33 cents; "Emerald" Large, 32½

(*Continued on page 27*)

FRUIT PEST HANDBOOK

(EIGHTEENTH OF A SERIES)

APPLE BLOTCH

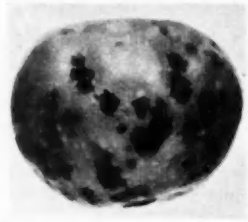
APPLE BLOTCH, a fungus disease named for the dark blotch-like spots formed on the fruit, is widely distributed in the central and southern portions of the apple belt. It rarely occurs in New England, New York, or Michigan, and is unknown west of the Rockies.

The fungus that causes this disease attacks the leaves, fruit, and woody parts. The symptoms produced on the different parts, while quite characteristic, are so different in appearance that it is difficult to realize they are all manifestations of the same fungus.

On the leaves the fungus produces tiny white spots, each usually having one black spore-producing structure protruding through the white tissue. When leaf infections are very numerous, the trees may be defoliated prematurely.

On the fruit the fungus produces a wide range of symptoms starting with dark, raised

(*Continued on page 28*)



Photographs at right show typical blotch injury to fruit. Blotch spots frequently cause fruit to crack open. Photo below shows blotch cankers on nursery stock.

GROWERS MUST FIGHT TO PROTECT THEMSELVES FROM PRICE-FIXING CHARGES

Federal Trade Commission action against Appalachian Apple Service threatens all fruit organizations striving to stabilize fruit prices through better marketing

By LARSTON D. FARRAR
Washington Correspondent, American Fruit Grower

THE Federal Trade Commission, in an unprecedented action, has made serious charges against Appalachian Apple Service, Inc., with headquarters in Martinsburg, W. Va., together with some 1,764 grower members. Also included are five processing companies in the Appalachian area.

The charges, in essence, are that the growers and processors, in various ways, combined to fix prices in restraint of trade to the detriment of competition and to the nation's consumers.

Both the grower group and the processors have denied the charges formally to the FTC. A hearing is scheduled on November 17 in Martinsburg, W. Va., before FTC hearing examiner, Frank Hier. However, the hearing may be delayed on request of the processors as this is the height of the canning season.

Carroll R. Miller, secretary-manager of Appalachian Apple Service, issued this statement:

"Our Government seems bent on making it illegal for growers to help themselves. One of the main things FTC cites as illegal is the annual preharvest marketing clinic, a discussion meeting of 75 to 100 representative growers and handlers held in Martinsburg. The FTC would prohibit that public meeting of growers.

"The apple industry is highly competitive, with thousands of apple growers and handlers all over the nation. The Appalachian Apple Service is a growers' association for one small segment of the industry.

"Appalachian handles no fruit at all. It has no contracts with growers or others, except to pay membership fees. No processors are members, only growers. Appalachian cannot compel a single grower to sell his fruit to anyone. It cannot compel a single processor to buy an apple from anyone or anywhere or at any price. It has never tried to do these things.

"The FTC charges Appalachian with diverting apples from one processor to another. That charge is foolishly ignorant.

"The processors of this belt and the nation are highly competitive. To get the apples they need, they must pay about the same prices their neighbor canners pay—or they get no apples. That is the first rule of all business. That is what FTC in this charge calls 'fixing' the price scale."

THE FTC's action in this instance has caused widespread surprise and no little chagrin throughout the fruit circles. If the charges can be made to stick, it is asked, what can growers do, without entering into marketing agreements under the supervision of the USDA, to strive for better prices?

Truman Nold, executive secretary of the National Apple Institute, with headquarters in Washington, D. C., said frankly that if the FTC is able to make its case stick against Appalachian Apple Service, which is purely an information agency, there is a distinct possibility of similar action by the same federal agency against his group at a later date.

However, Mr. Nold very definitely discounts the idea that the FTC possibly can be successful in making its charges stick in the Appalachian Apple Service case if the full facts are developed as they undoubtedly will be. He says that while he can see where there would be an "appearance of evil" to someone—such as an FTC agent who knows nothing about the apple business—the FTC commissioners before the case is over undoubtedly will learn that appearances sometimes are very deceptive and never more so than in this instance.

Lowell Mason, a member of the Federal Trade Commission since 1946 and formerly chairman of that body, has said on more than one occasion that under present laws, as interpreted in the past by his fellow commissioners and upheld by the Supreme Court, the FTC can cite almost any businessman in the United States for violations. He has become known as the "Great Dissenter" on the FTC by voting against a majority of his fellow commissioners in case after case, that, to lay observers, have seemed to be about as far-fetched as the Appalachian Apple Service case.

The FTC is its own prosecuting attorney, judge, and jury. Its agents "make" a case, then one of its examiners hears the evidence. If he makes a finding of fact, it is accepted as the judgment of the FTC in the absence of an appeal or affirmative action to the contrary by the commission itself. If there is an appeal, it is to the Federal Trade Commission itself.

So, whatever the case, it is obvious that those cited are up against a "stacked deck," although sometimes the FTC rules against its own men—sometimes, but not very often.

The actual complaint, which is numbered 6,041 charges the Appalachian Apple Service and the five processors with "combining to fix, stabilize, and maintain the prices for raw apples used for processing purposes." The charge also is made that, by agreement, shipments of apples have been diverted from one processor to another as a part of a plan to prevent excessive supplies of apples getting into the hands of one processor and a possible price break resulting from that action.

The respondents named in the complaint are The C. H. Musselman Company, Biglerville, Pa.; National Fruit Product Company, Inc.; Winchester, Va.; Knouse Foods Co-operative, Inc., Peach Glen, Pa.; Bowman Apple Products Company, Inc., Mount Jackson, Va.; and Shenandoah Valley Apple Cider & Vinegar Corporation, Winchester, Va.; their officers, directors, executive committee members, agents, and representatives. Also named as a respondent is Appalachian Apple Service, Inc., of Martinsburg, W. Va., and its officers, directors, members, agents, representatives, and committees. *(Continued on page 26)*

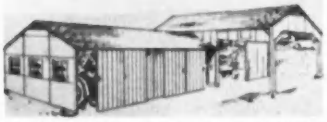
BUILD FOR TOMORROW

When You Build Today

These orchard buildings are well designed, economical to construct, and will give many years of efficient service

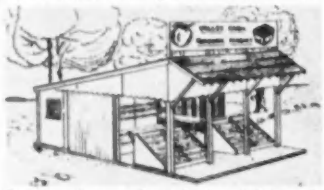
Basic tenant house can be built as a single unit or a multiple family dwelling.

Pole-type packing shed of 30x70-feet has a six-foot loading and storage dock.



12x24-foot sections comprise machinery storage; workshop is two-story design.

10,000-bushel cold storage and packing house can be enlarged to 20,000-bushel.



Overhanging roof protects customer in this roadside market with movable racks.

THESE PLANS ARE AVAILABLE

Working drawings showing construction details are included.

Tenant House	$1.00
10,000-Bushel Apple Cold Storage	1.00
Roadside Market	.50
Pole-Type Packing House	1.00
Machinery Storage & Repair Shed	1.00

Send remittance to

AMERICAN FRUIT GROWER
Willoughby, Ohio

HOW TO REDUCE WINTERKILLING OF RASPBERRIES

WINTERKILLING is sometimes a major difficulty in raspberry growing. In our experience of growing both black and red raspberries we have found that winter injury is of two types. The first is caused by late fall growth of the canes, followed by early severe cold before the canes have matured sufficiently to withstand the cold.

Summer heat and drought, followed by fall rains or late cultivation, stimulate late cane growth. It is this growth which must be checked in late fall. This is best done by stopping cultivation the last week in July and sowing a cover crop between the rows to compete with the canes for plant nutrients and moisture throughout the fall months. In a very wet fall we even stimulate the growth of the cover crop by using nitrate of soda, 100 pounds to the acre.

Early Spring Injury

The second type of winter injury is the so-called spring killing which occurs after mild days in late winter and early spring. During this time of warm weather red raspberry canes will start growth activity, and if a sudden drop in temperature occurs severe damage results.

This type of injury is difficult to prevent. We find that raspberries planted on a north slope are less inclined to start growth during these warm periods.

Raspberry varieties vary greatly in winter hardiness. In our section of Atlantic County, 30 miles from Atlantic City, N.J., the hardiest varieties of red raspberries are Latham, Chief, and Sunrise. In black raspberries, Cumberland is our standby, but we are still planting Columbian.

Cultural Requirements

Choice of land and preparation of this land for planting are important to successful raspberry culture. The field to be planted should be free of perennial weeds. Good drainage is another essential because raspberries do not like "wet feet." The water table should be at least 24 inches below the surface of the land throughout the year.

We plow under our cover crop in the middle of April. Fertilizer is broadcast along both sides of the rows, then disked in. After the second disking we mulch the rows with our strawberry mulch.

Good air circulation is very important not only to help prevent damage by spring frosts but also to reduce the possibility of disease infections.—*Charles A. Cimosella*

TRIPLE DIVERSIFICATION

IT IS difficult for the average orchardist to diversify his operation, but some steps are being made in that direction. In California the need is for more meat animals, and to fit orchards and animals together you need a source of feed.

The irrigated pasture can be used with certain kinds of fruit trees and on certain kinds of soils. If the orchard has drainage and will stand frequent waterings, the irrigated pasture is an excellent source of additional income.

Animals have been pastured successfully in almond, olive, and pear orchards. The almond and pear are upright trees, but the olive suffers some reduction of crop due to the cropping of the skirts of the trees.

Hulls Make Excellent Feed

In Butte County, California, it was discovered that the outer hull of the almond, which looks somewhat like half of a dried peach, is excellent feed. For years this hull was thought useless and was burned or turned under the soil.

Now we see a trend towards putting animals under the trees on irrigated pastures that look like well-kept lawns. The solid turf affords a footing that allows sprayers, pruners, or pickers to go on the land in some cases the day following irrigation.

When a grower pastures animals under almond trees and feeds them the almond hulls as a supplemental feed it is called triple diversification.

Utilizes More Land

Orchards managed under such a program seem to do better, too. One pear grower in Lake County speculated that with such a permanent cover crop he utilizes more of his land since he no longer does any cultivating. The roots of his trees not only have a chance to take permanent possession of the top six to nine inches formerly denied them, but they also use nitrogen stored by the Ladino or other legumes comprising the irrigated pasture mix. In addition, the trees benefit from the animal manures which return valuable plant food to the soil.—*Jack T. Pickett*

The QUESTION BOX

What should I use to clarify vinegar?—*Ohio*

A good way to clarify vinegar is to filter it through a filter aid such as Johns-Manville Celite. This may be obtained from the Johns-Manville Corp., 22 E. 40th at Madison Ave., New York 16, N. Y. An efficient filter can be made by building a perforated false bottom in a wooden box and covering it with muslin. Then place about three inches of filter aid on the cloth and fold it so that the filter aid cannot escape along the folds. Place another false head on top of the cloth and filter aid and secure with wood screws. Mix about one pound of filter aid to a barrel of vinegar before running it through the filter pad. The first vinegar that comes through should be run back into the supply tank as it may contain some loose filter aid. When through filtering, the filter can be cleaned by forcing water through it.

Where can I obtain Hibernal apple trees? —*Ohio*

The Bountiful Ridge Nurseries, Princess Anne, Md., sell one-, two-, and three-year old Hibernal crab apple trees.

My Elephant Heart plum trees always bloom profusely in the spring but fail to develop fruit. There are numerous other plum trees in the immediate vicinity—Green Gage, Italian Prune, Satsuma, Session, Potawatomi, etc.,—and these appear to be adequately pollinated as they are bearing annually.—*Utah*

It is difficult to find a good pollinizer for Elephant Heart, which is a Japanese variety. Your pollinators are mostly European and native kinds, and it might help if you had some other Japanese varieties in the vicinity such as Beauty or Shiro. Richard Wellington of the New York State Agricultural Experiment Station, Geneva, N.Y., writes that in a plum orchard at Geneva, producing a large number of varieties, Elephant Heart occasionally yields good crops but oftentimes fails to set fruit.

Can the Duarte plum be grown in Illinois and can Satsuma be used as a pollinator?—*Illinois*

The Duarte plum is cultivated mainly in California, and like Satsuma, seems to be one of the more tender Japanese varieties. J. C. McDaniel, of the University of Illinois, reports that it is not recommended for northern Illinois. Superior, with Kaga as a pollinator, is a good cooking variety and would be a better choice. Also, Stanley is a good prune-type plum and is self-fruitful.

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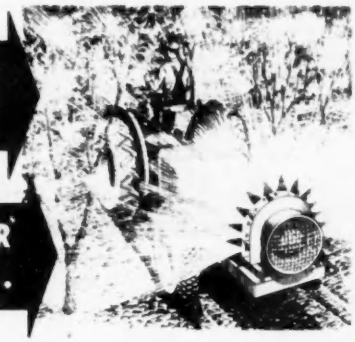

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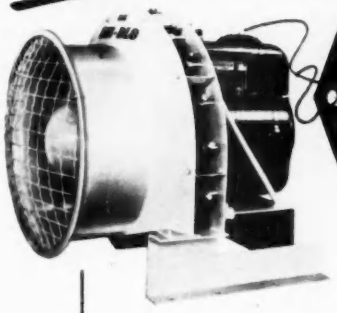

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A LIVABLE ORCHARD HOME

(Continued from page 12)

barn. The building was then lowered onto its new foundation.

The hayloft on the second floor was quickly partitioned off into three good-sized bedrooms and two bathrooms. Three dormers were cut into the roof to provide window area—and views—for two of the bedrooms while the third dormer became a bathroom seven feet wide and eight feet long. A chimney was built right through the middle of the house for the hot air heating system and a large wood burning fireplace.

On the first floor the section of the barn which had originally contained stalls for 12 dairy cows became a pine-paneled living room. At the north end of the first floor two box stalls became a 12x14-foot kitchen and a 13x14-foot dining room, while at the south end two calving pens were converted into a library and office. It was not necessary to change any of the original first-floor partitions.

At the front entrance, where formerly two large bins held grain, a washroom and closet were constructed. The house was insulated throughout.

PLANT TO BEAUTIFY YOUR ORCHARD HOME AND MARKET

The references listed below will help you in the interesting and rewarding task of landscaping your homestead, as pointed out by Author Eldon S. Banta on pages 10 and 11. These references perhaps are available at your library or can be purchased from the publishers or from AMERICAN FRUIT GROWER, Willoughby, Ohio, by sending remittance in the form of check or money order.

Compiling a New Nursery List $0.40
By L. C. Chadwick
Published by American Nurseryman, 508 S. Dearborn St., Chicago, Ill.
(Consists of a selection of superior varieties of wood deciduous ornamental plants.)

The Design of Small Properties 4.00
By M. E. Bottomley
Published by The Macmillan Company, New York, N. Y.

How to Landscape Your Grounds 3.50
By Loyal R. Johnson
Published by A. T. De La Mare Company, Inc., New York, N. Y.

Landscaping the Farmstead...0.15
Vocational Educational Bulletin 189,
Office of Education
U. S. Department of the Interior, Washington, D. C.

Your own state college or agricultural experiment station also has helpful information.

Cost of Remodeling

The entire conversion job, including moving, original cost of the barn, and remodeling, totaled $19,000. To duplicate such a house, new, including land and fixtures, would cost $30,000.

For remodeling purposes, the market offers a large selection of new materials and equipment which speed up the job of remodeling and give superior performance. For instance, the floors of the new house were constructed of prefinished Bruce Ranch-Type flooring, especially designed for country living. Prefinished and prewaxed at the factory, this flooring defies scratches and scrapes and is remarkably easy to keep clean because of its highly polished surface. It is blind nailed into place and is ready for use, requiring no sanding, finishing, or polishing.

For plumbing fixtures, the vitreous china lavatories, wash basins, and water closets, which are available from the Eljer Company in soft pastel colors, were selected. The mechanical features such as the ingeniously constructed overflows, drains, non-splash faucets, and the wide variety of models and sizes available make their line of plumbing fixtures highly suitable for remodeling.

New, efficient pumps are easy to install for water systems, and heating systems with built-in automatic controls are much more efficient than the old types. Prefinished wallboards, new paints the amateur can apply with ease, a wide variety of door hardware, and attractive lighting fixtures make remodeling a pleasant task, one that can be kept within a prescribed budget.

Secret to Success

The secret to success in remodeling is detailed planning with every move worked out on paper well in advance. To proceed without a set of detailed blueprints, prepared by a competent architect, is like driving a car in a dense fog. Before buying an abandoned house or barn don't fail to check thoroughly for rotten beams, termites, and other signs of decay which are so costly to remedy. Also, be sure to obtain at least three bids, including completion dates, from three different contractors for every job hired out. You will be amazed how their prices will vary.

Remodeling is not an easy job but if skillfully done will reward you with a comfortable modern home which is a credit to our rural America and a fitting testimonial to a fruit grower's eye for beauty. THE END

CHANGES IN NIAGARA PERSONNEL

SOME major changes in its top management personnel were recently announced by the Niagara Chemical Division of Food Machinery and Chemical Corporation, Middleport, N. Y. Ernest Hart who, in 1947, assumed the duties of president of Niagara was elected executive vice president of Food Machinery and Chemical Corporation and will be responsible for the supervision of the operations of the corporation. His headquarters will be in New York City.

Ernest Hart

Succeeding Mr. Hart as president of Niagara Chemical Division is Jackson V. Vernon. A graduate of Mississippi State College, Mr. Vernon served for a short time with the Mississippi State Plant Board and the U. S. Department of Entomology. He has been with the Niagara sales organization since 1923 and since 1947 has been vice president and sales manager of the division.

J. V. Vernon

Stuart H. Bear, a graduate of Pennsylvania State College, who specialized in entomology and plant pathology, joined the Niagara sales organization in 1931 and in 1947 was made assistant sales manager. Now as vice president and sales manager of the division he fills the position vacated by Mr. Vernon.

S. H. Bear

One of the major plants of the Niagara Chemical Division is located at Middleport, N. Y. Here, too, are located its administrative and research headquarters. The division manufactures, formulates, and distributes agricultural chemicals throughout the U. S., Canada, and Mexico, and serves the export market in scores of foreign countries.

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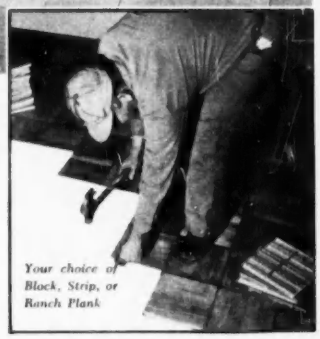

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HISTORY OF HORTICULTURE

Life Story of J. H. Hale

By H. A. ROLLINS

JOHN HOWARD HALE, fruit grower, nurseryman, and leader of men, was born in Glastonbury, Conn., on November 25, 1853.

John Hale and his brother started with a small business, their only equipment being a hoe, shovel, spade, and a push cart. In his nursery catalog of 1896, J. H. Hale paid tribute to the push cart by stating, "That push cart had more to do with our success than we are aware of. Loaded, it took lots of push to start it, hanging back it wouldn't move a peg, but by keeping everlasting at it we got there. This early lesson from the old hand cart stimulated us through many trying times."

He was anxious that Connecticut youth have a more formal education than he had been able to obtain. Consequently, during his four years as master of the Connecticut State Grange and as a member of the Connecticut General Assembly, he successfully led the campaign to make the then Storrs Agricultural School the Storrs Agricultural College (now the University of Connecticut) and to make it the Land Grant College of Connecticut.

Numerous Activities

As an agricultural speaker Mr. Hale was in great demand because he was forceful, convincing, and witty. He inspired many young men to become fruit growers and he spent considerable time in helping others to become established in the business. His activities included the legislature and grange, state board of agriculture, and president of the Connecticut Pomological Society, president of the American Pomological Society, and president of the American Nurserymen's Association.

The native seedling peach trees growing along the fence rows on his home farm apparently intrigued John Hale. Believing there was a future in growing peaches commercially, he expanded from 200 trees in 1869 to 10,000 in 1890. Soon after this, he planted 1,000 acres of peaches in Fort Valley, Ga., which, together with his orchards at Glastonbury and Seymour, Conn., made a total of 2,500 acres with 350,000 trees under his supervision in 1895. At this time he was called the "Peach King of America."

J. H. Hale—1853-1917

The chance seedling peach which Mr. Hale found on his Glastonbury farm and propagated there about 1909 as the "J. H. Hale" is still being grown as a high quality peach and is used extensively by plant breeders as one of the parent peach varieties to obtain high quality.

After having served as president of the Connecticut Pomological Society for several years he continued as chairman of the society's committee on markets and transportation. Many of his ideas and philosophies on marketing are still sound and could well be practiced to advantage today. For example, he was famous for a statement on his fruit package label which read, "U see top U see all." According to the *Hartford Times* story of Mr. Hale's death in October, 1917, at Glastonbury, Conn., he was "the first American Orchardist to sort, grade, and label fruit according to grade."

Mr. Hale was horticultural agent for the eleventh United States census, and in that capacity initiated several special investigations never before attempted by the government, notably in floriculture, nurseries, semi-tropical fruits, and nut and seed farms. He was agricultural editor of the *Hartford Courant* for 15 years and for 12 years was an associate editor of the *Farm Journal* magazine.

The author, H. A. ROLLINS, is on leave from the plant science department of the University of Connecticut to do work in Beirut, Lebanon, in connection with improvement of fruit and fruit stocks.

TREAT FRUIT RIGHT

(*Continued from page 9*)

to build their warehouse, they studied McAnally's closely. "But we did a lot of looking around and a lot of figuring before we went ahead," Walt said.

Different Insulation

Like McAnally, the Allans did not use a contractor but hired specialty work and did the rest themselves. The building, designed to hold 55,000 boxes, is 120x54x21.8 feet. Like the other houses, the ceiling height allows both air space and crawl space for spot inspection.

The Allans used a different insulation, two sheets of reflective aluminum foil with a two and one-half-inch dead air space and rock wool bats between. Seven inches of blown rock wool insulate the ceiling.

Like McAnally, they have a packing room along one side of the storage room and pack out their own fruit. During the off season, they store Bartlett pears for the canneries but do not hold more than one-third capacity. During the apple season, they fill the storage with their own fruit.

Interesting Experiment

The four men in the Upper Naches Growers market their fruit separately. Their experiment is being closely watched. Some feel they are running a risk in the proper sharing of the costs of operation on a per stored box charge basis.

The 44,000-box plant is, like all the others, a pallet-type operation. The plant is similar in construction to McAnally's with Fiberglas bats on the walls. Loose Fiberglas is used in the ceiling.

Again, the growers acted as their own contractors, hiring specialty work and doing the rest themselves. Like the Allans, they store cannery pears during the off season and fill the room with their own apples.

The trussed roof construction, of course, limits the warehouses to one floor, requiring expansion to be horizontal, not much of a problem when the land is their own. The lack of gravity power to move the boxes from storage to loading dock has been overcome with the use of pallets and fork lift trucks. The per box investment ran approximately $1 for the larger Allan and McAnally warehouses and $1.25 for the Upper Naches Growers house.

The ranch owners are convinced that having their own storage close at hand pays off in lower storage costs, easier handling, and better quality fruit. THE END

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8 MY [illegible] ..... APPLE-BULLSEYE
9 HERD [illegible] ..... PEACH-BULLSEYE
10 CARDINA ..... PEACH-BULLSEYE
11 EARLY [illegible] ..... PEACH-BULLSEYE
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- ☐ Everybody's Poultry Magazine — 1 yr.
- ☐ Farm Journal and Farmer's Wife — 1 yr.
- ☐ Household — 1 yr.
- ☐ Mother's Home Life — 2 yrs.
- ☐ National Live Stock Producer — 1 yr.
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TENNESSEE NURSERY CO., Box 4, CLEVELAND, TENN.

C-A STORAGE

(Continued from page 7)

"Our Vermont fruit will apparently keep considerably longer than we had expected," Stalker says. "We could have continued shipping six or eight weeks longer."

Just what is C-A storage? Like other living things, picked fruits continue to respire. The faster they use up oxygen, the quicker they deteriorate. Cold storage slows down this ripening rate. Another way is to reduce the oxygen needed for respiration. A third is to increase carbon dioxide which "smothers" the respiration. All three methods are combined in C-A storage.

When the gastight room is sealed, the apples start using up oxygen. Meanwhile, carbon dioxide is building up. The idea is to keep a balance —oxygen below three per cent and carbon dioxide around five per cent. If more oxygen is needed fresh air is admitted. Excess carbon dioxide is removed by caustic-soda solution.

Storage Construction

The newly built gas chamber at Shoreham is a room 31x72 and 11 feet high. Walls and ceiling are of 24-gauge aluminum with 10 inches of granulated cork behind walls for insulation and 12 inches above the ceiling. Panel joints and nails are aluminum, too.

Between the three-inch cement floor and six-inch subfloor of reinforced concrete are two layers of corkboard, each one and one-half inches thick and imbedded in hot asphalt.

A standard air-purifying system removes ethylene and foul odors. Freon is used for a refrigerant. When the room was open during filling and emptying its temperature was kept at 32°. During the months it was sealed up, the temperature was 38°.

On the other side of one wall is the small control room with its refrigeration compressors and the special equipment. Air from the storage was piped in here and run through two tanks containing caustic soda solution to remove carbon dioxide. The cleaned air was then circulated back into the storage.

Twice a day during the 1951-52 season Stalker removed a small sample of this air for testing with a special kit. In this way he could judge how long to wash with caustic soda, when to admit fresh air, etc. Striking the right balance was somewhat tricky at first, but Stalker's background in science at Cornell and practical experience with apples combined to work out a system that became routine.

The co-op had figured it would cost 25 cents a box more to build and equip a gas chamber than conventional storage and that operating costs would be around 12½ cents a box more for the new method. Accordingly, its members and others paid 20 cents a box more for the C-A storage to make up for increased operating expenses and amortize the construction cost.

Precautions

In filling such a storage, simple precautions must be taken. For best results the fruit should be prime—in as good condition as apples intended for long-term, conventional storage. The room should be filled within a week or 10 days and its relative humidity kept at 90 per cent or more. This was accomplished at Shoreham by sloshing the C-A storage room with water every night.

The last boxes to go into the storage in 1951 were passed through an opening in the door, the inside man crawled out through that opening, and the thick glass window was sealed. Two boxes of apples were

HANDY ANDY

Maneuvering around trees in orchards and down berry cane rows is the job for this narrow and short-coupled manure spreader built by L. P. Zabroski of Puyallup, Wash. It will hold a yard of manure. A gear operating from the left wheel works a chain drive to turn the spiked rollers which break up clods and do the spreading. Another gear on the right wheel operates an endless conveyor inside the box which keeps the load moving back to the spreading forks. Pulled by a tractor, the machine spreads evenly and gets into tight places where a larger-sized unit can't reach. Zabroski built this spreader for around $300.—*Richard C. Bell*

left open in front of the window for easy inspection through the glass.

Stalker kept in close touch with Jack Cook, president of the co-op, its other eight members, and their selling agent. The C-A apples were aimed at the post-Easter market and quickly scored a bull's-eye in both price and demand.

Well Adapted to McIntosh

Of course, storage of any kind has a certain speculative factor in it, and the C-A method is no exception. Moreover, it seems peculiarly well adapted to McIntosh apples. However, Dr. Smock points out it is not as suitable for all varieties. For example, it works "very good" with such varieties as McIntosh, Northern Spy, and Northwestern Greening, but "very poor" with such varieties as Baldwin, Jonathan, and Wealthy because of carbon dioxide injury.

The Shoreham experience is an example of what can be expected in a McIntosh region and with growers who concentrate on the better quality market.

According to Dr. Smock, additional C-A storage is being constructed this year which will handle 86,000 boxes of apples. This will bring the total C-A storage capacity in the United States to around 300,000 boxes. THE END

BUCKNER INCORPORATES

ON September 1, 1952, Buckner Manufacturing Company, which as a partnership has been manufacturing all types of portable and underground sprinkling equipment for the past 38 years, became Buckner Manufacturing Company, Incorporated, Fresno, Calif. The new corporation plans to enlarge the business in which the partnership pioneered.

J. B. Gill, well known in the sprinkler irrigation business, has been appointed general manager in charge of all operations, both production and sales, of the new corporation. Mr. Gill in the 1930's was salesman and later manager of the New York office of the Buckner Manufacturing Company. For the past 14 years he has served as manager of the Transite pipe department of the Johns Manville Sales Corporation.

A reader writes, "Nowhere other than in AMERICAN FRUIT GROWER can I find advertised such a wonderful variety of equipment and products that the grower needs." Read the advertisements and remember advertisers will be glad to send you catalogs, specifications, and prices. Be sure to say you saw it in AMERICAN FRUIT GROWER.

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Controlled-Humidity Fruit Storages

Will hold a hundred bushels or a hundred thousand, at the temperature and relative humidity you want, for short or long periods. Patented system prevents shrinkage. There's a FRICK refrigerating system of the size and type to meet your needs exactly.

Prepare now for next season: write for Bulletin 146.

FRICK CO. WAYNESBORO, PENNA. U.S.A.

Also Builders of Power Farming and Sawmill Machinery

● **Register of New Fruit and Nut Varieties, 1920-1950** *($3.00) University of California Press,* by Reid M. Brooks and H. P. Olmo. Briefly describes 1,106 varieties originating in North America and introduced commercially during the last 30 years. Variety name with synonyms, originator's name and address, date of commercial introduction, plant patent number, parentage, and most valuable characteristics of the variety are included.

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"Successor to M. H. HUNT & SON"

Evergreen Lining-Out Stock
TRANSPLANTS and SEEDLINGS

Pine, Spruce, Fir, Canadian Hemlock, Arborvitaes, Multiflora Rose, in variety. For growing Christmas trees, Windbreaks, Hedges, Forestry, Ornamentals. Prices low as 2c each on quantity orders. Write for price list. SUNCREST EVERGREEN NURSERIES, Dept. AFG, Box 594, Johnstown, Penn.

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GREENING'S TREES

- **BUD SELECTION**
- **ALL ORDERS GUARANTEED**
- **PROVED and PROFITABLE VARIETIES**

The Greening Nursery Company, one of the leaders in bud selection, have for over 100 years given all growers the benefits of their research and improved strains which mean greater orchard profits.

AGENTS

Earn extra money, full or part time. It's pleasant and profitable to sell Greening nursery stock. Write us today for all of the details.

Send 10c to cover postage for the Greening 100-year anniversary 60-page color catalog.

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THE GREENING NURSERY CO.
P. O. BOX 605 MONROE, MICHIGAN

They Must Be In the Soil!

Your soil must have the proper mineral balance if optimum growth and production are to be achieved. You will have healthier plants and healthier fruit if your soil is properly mineralized. Fruit and vegetables rich in vitamins cannot be grown in soil poor in minerals. ES-MIN-EL contains these minerals: Copper, Manganese, Boron, Iron, Zinc and Magnesium . . . all essential to healthy plants and vitamin-rich fruit. Mineralize your soil with an application of ES-MIN-EL now . . . You'll be pleased with the results . . . ES-MIN-EL, the essential mineral elements.

ES-MIN-EL is now available in spray or dust form for direct application to the plant where the soil was not properly mineralized. Spray or dust ES-MIN-EL is a neutral form of Copper, Manganese and Zinc.

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SOIL APPLICATION

REQUEST
that your local fertilizer dealer furnish you a completely mineralized fertilizer containing the essential mineral elements!

Free Booklet
Send card or letter to Tennessee Corp., Grant Building, Atlanta, Georgia or Lockland, Ohio.

TENNESSEE CORPORATION
Atlanta, Georgia — Lockland, Ohio

Advertisement

From where I sit ... *by* Joe Marsh

Wonder How Miss Gilbert Is in "Histery"?

By now I guess you've heard about the spelling errors in the kids' report cards this week.

A typical card looked like this:

Arithmetic	**B**
Geography	**B–**
Spelling	**C**
Grammer	**B**

I don't know if Miss Gilbert, the principal, actually wrote those cards, but she took full responsibility. This morning I hear she got up in the Assembly Hall—before all the students—and wrote GRAMMAR with two "a's" on the blackboard 100 times!

From where I sit, I'll bet this makes her even more popular with the students. It's nice to see an expert admit she occasionally makes a mistake. Too many so-called "experts" claim they're *never* wrong on such subjects as what you or I ought to eat . . . what we should wear . . . whether we should enjoy beer or buttermilk. A really wise person never claims to "know all the answers" all the time.

Joe Marsh

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NEW FOR YOU

Great Laborsaver

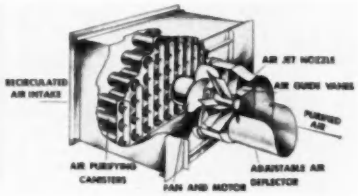
The Hi-Duty Transitier fork lift truck is being used by many successful growers.

This truck, equipped with the Roto-Arm clamp, unloaded three truck loads of apples and loaded 1,512 empty boxes back on the truck in 30 minutes. The Roto-Arm clamp, a recent development in fork lift truck accessories, can be converted from a clamp to conventional forks in less than 15 seconds. Just write Transitier Truck Company, Portland 10, Ore. Be sure to mention AMERICAN FRUIT GROWER.

Beautify the Home

It is valuable for the fruit grower to landscape his home and roadside market attractively. Just the other day I saw a very attractive catalog especially designed for the fruit grower. It not only contained colored photographs of dwarf and standard fruit trees but also ornamental trees, hedges, and bushes to make homes and orchard buildings attractive. This catalog can be obtained free by writing Stark Bro's Nurseries, Box 183, Louisiana, Mo.

Make Them Keep Longer



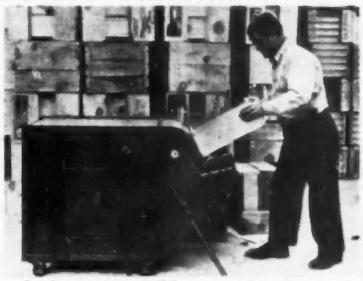
Apples and pears don't die the moment they're picked. Their life process continues for some time afterwards, but not always at an even tempo. Right after picking, the fruit's "metabolism" is slow and leisurely, but a few days later it speeds up, gradually rising to a peak and then slowing down rapidly. It is during the time that apples and pears are "fast livers" that they decompose rapidly.

Activated carbon absorbers remove the storage gases thus slowing down the rip-

• STORAGE COMPRESSOR
• CARBON ABSORBERS

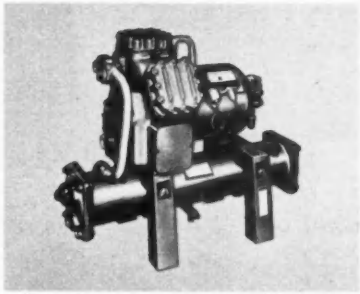
ening process and adding to the "life expectancy" of the fruit sometimes as much as six to eight weeks. Cost of these absorbers varies according to the size of the storage and is in the neighborhood of six or seven cents per bushel. Annual upkeep of the carbon filter medium is around one cent per bushel. Why not get full particulars by writing W. B. Connor Engineering Corp., Danbury, Conn.?

Re-Use Your Boxes



It is now possible to make those old boxes and lugs look like new at very little cost. One growers renews from 60 to 250 boxes an hour with the machine pictured above. The Holt Whirlwind box sander is sturdily built and is relatively inexpensive. If you are plagued with this problem write Holt Manufacturing Company, 651 20th St., Oakland 12, Calif.; or if you live in the East, 272 Badger Ave., Newark 8, N. J. Don't forget to mention AMERICAN FRUIT GROWER.

Big or Small



For the grower-owned cold storage, hermetically sealed Westinghouse compressors have proven themselves to be economical. They are made in sizes from two to 100 horsepower. If you want the latest information on the Westinghouse compressor line, just write Westinghouse Sturtevant Div., Hyde Park, Boston 36, Mass. Remember, too, that AMERICAN FRUIT GROWER has working plans for cold storage constructions available to our readers for $1.00.

Wherever Engine POWER is Needed...

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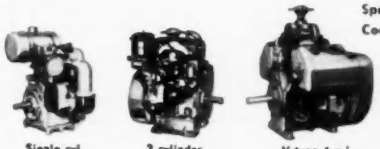
HEAVY-DUTY
Air-Cooled
ENGINES
Fit the Job and the Machine

Because Wisconsin Air-Cooled Engines are supplied in a complete power range, from 3 to 30 H.P., in 4-cycle single cylinder, 2- and 4-cylinder types, there is an ideal size to fit all types of orchard and farm equipment within this range, without wasted power and with maximum power service benefits. Heavy-duty construction, combined with extremely compact design and light weight are added advantages — and dependable AIR-COOLING permits trouble-free service under all climatic conditions.



Single cyl. 3 to 9 H.P. — 2-cylinder 7 to 15 H.P. — V-type 4-cyl. 15 to 30 H.P.

Specify Wisconsin Heavy-Duty Air-Cooled Engines for the utmost in power satisfaction. Write for free copy of "Power Magic," illustrating and describing the full line of Wisconsin Air-Cooled Engines and ask your dealer about these heavy-duty engines.

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WISCONSIN MOTOR CORPORATION
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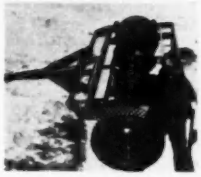
The Culti-Cutter

Knocks down and cuts up cover crops—replaces mowing. Cuts up and shreds prunings and brush—saves picking up brush. Builds the soil—saves the soil.



EASY BRUSH DISPOSAL

The photograph on the left shows orchard brush ready for disposal. Note in photograph on right how easy brush can be cut with

The Culti-Cutter

On brush, cover crops, and preparing soil, this rugged, versatile, easily-drawn machine saves fruit growers time and money.

Write EDWARDS EQUIPMENT COMPANY
4312 Main Street, Yakima, Washington

For information or prices in area East of Mississippi river write Michigan Orchard Supply Co., Dunkley Ave., South Haven, Mich.

4 CYCLE
BRIGGS & STRATTON
GASOLINE ENGINES

Preferred power on portable "lubricators," and hundreds of other farm, ranch and orchard machines and equipment — the world's most widely used single-cylinder air-cooled gasoline engines.

The design, workmanship, and precision manufacture of Briggs & Stratton single-cylinder, 4-cycle, air-cooled gasoline engines has made them world-famous for dependability—your assurance of peak performance on hundreds of different kinds and types of farm machines and equipment.

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HOW TO MAKE A LIVING IN THE COUNTRY, by Fred Tyler. Ninety-six pages of ideas for making a living in the country. The eight pages on roadside marketing are worth the price of the book. $1.00

DWARF FRUIT TREES, by Lawrence Southwick. A complete description of the selection, planting and cultivation of dwarf fruit trees. $2.50

Sent postpaid on receipt of remittance.

AMERICAN FRUIT GROWER
Willoughby, Ohio

GROWERS MUST FIGHT

(*Continued from page* 15)

THE COMPLAINT states that approximately 60 per cent of all apples harvested in the nation and sold to processors are processed in the Appalachian Belt by the five processors and that, in 1950, these processors used more than 11,000,000 bushels of apples. It is charged that these processors thus possess the ability and means of dominating and controlling the raw apple market for processing purposes in the United States.

The complaint further charges that the alleged unlawful combination operates and is made effective through the marketing clinic, processor committee, grower committee, and joint grower-processor committee of Appalachian Apple Service. The clinic meets late in August of each year to discuss marketing conditions with a view to getting better prices for the growers, a fact which the grower group freely admits. The processor committee, FTC states, consists of six individuals and thereafter meets to determine the maximum price the processors expect to pay the growers for apples for processing purposes.

The grower committee, according to the FTC, also consisting of six individuals, meets separately and determines the minimum price they expect to accept from the processors. Thereafter, it is alleged further, these two committees meet as a 12-man joint grower-processor committee, negotiate their differences, if any, and settle upon the price for "top" grade apples, which price is thereafter adopted and used uniformly by all the processors in their purchases of raw apples for processing purposes. By application of a mathematical percentage formula to the "top" price thus adopted, FTC alleges, all the processors arrive at identical price scales which are maintained throughout the season.

The complaint further alleges that, as the result of the combination which operates to devise uniform price scales, competition has been hindered and eliminated, and interstate trade and commerce have been restrained.

To anyone who is familiar with the facts of life in the fruit growing industry—how prices in Appalachian area bob up and down and how thousands of growers compete with each other to get best possible price—these charges don't make much sense.

Meantime, the board of directors of the Appalachian Apple Service has made one request to members of fruit organizations in other areas: "Please watch this case as it unfolds, follow the news and reports about it carefully; it may be important to you."

FRENCH HYBRID GRAPES

(*Continued from page* 13)

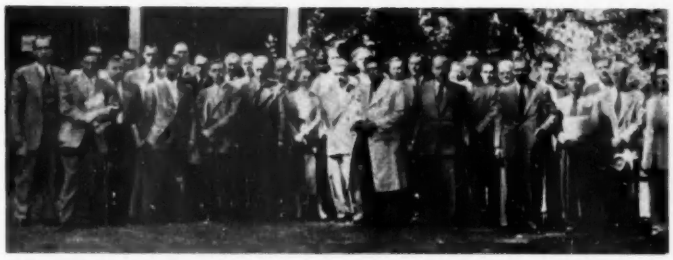
classic French varieties in the hope of developing entirely new ones. What the French wanted were grape varieties which would not have to be grafted but would possess resistance to phylloxera, resistance to the mildew diseases of foliage and fruit, plus the fruit quality for wine making and for table use of the classic French grapes, such as Gamay, Pinot, Chasselas, and Muscat. In this long, slow task, seeds and cuttings provided by Munson and by several other Americans, Hermann Jaeger particularly, proved indispensable.

Thus it is that many of the so-called French hybrids which now are becoming familiar to American grape growers do indeed have a family relationship to some of those Munson hybrids — Ellen Scott, Delicatessen, Longfellow, Minnie, Last Rose, and Beacon, to name a few, which are still being grown in this country.

Yet there are differences which are important. Munson died in 1913 and the disposal of his last remaining vineyard in the thirties was a great tragedy, though the event passed virtually unnoticed. He did not have a sharply developed sense when it came to distinguishing the wine-making qualities of his productions. His primary interest was in table grapes rather than wine grapes.

The French breeders, on the contrary, who took up where he left off, knew that their fruit productions must earn the approval of the most exacting critics imaginable—the grape growers of France. Their earliest productions did not pass that test. How well the work during the past three-quarters of a century has been done is indicated by the fact that one-third of all the wine made in France is now the product of the French hybrids and that their use continues to expand.

Today in every part of wine-growing Europe the hybrids of Baco, Seibel, Couderc, Oberlin, Kuhlman, Seyve-Villard, Ravat, and other devoted hybridizers are being cultivated in large quantities, many of which are now proving adapted to American conditions. Thanks to Munson, they descend from stout ancestors which once flourished in the American Southwest. THE END



Through the auspices of the Mutual Security Agency, 32 marketing experts from eight European countries and the United Kingdom recently attended special short courses arranged by the USDA and Cornell University, Ithaca, N. Y., and designed to give the visitors first-hand information about the marketing of fruits and vegetables in the U.S. The course dealt with the physical handling of fruits and vegetables and their products, the business organization of the fruit and vegetable industry, including processing, business methods and practices, and governmental services and regulations.

The visitors arrived in the U.S. on August 7 and departed October 18. During their 10-week stay they also were afforded an opportunity to see marketing "in action" at private and co-operative fruit and vegetable farms, auction markets, food terminals, farmers' markets, supermarkets, and numerous fruit processing plants, traveling as far west as Chicago.

The group is shown above in front of AMERICAN FRUIT GROWER editorial offices in Willoughby, Ohio. A few members of the group planned to travel to California and Washington.

STATE NEWS

(*Continued from page* 14)

cents; "Emerald" Medium, 31½ cents; and "Emerald" Babies, 28 cents.—*Jack T. Pickett.*

MONTANA—The Montecahto Clubhouse, at Polson, will furnish the setting for the 55th annual meeting of the Montana Horticultural Society on November 20-21. General theme of the two-day meeting will center around hybrid vegetables and new vegetable varieties, chemical weed control in vegetables, small fruits as well as tree fruits, and a special trend towards strawberry production, soils and fertilizers, new varieties in apples, sweet cherry problems, marketing, and landscaping.

Out-of-state speakers will include two Yakima, Wash., authorities, W. A. Luce, county extension agent, and Fred C. Carver, inspector at large.—*R. O. Young, Sec'y, Missoula.*

L. J. Richardson of Monitor, Wash., is shown examining the new Royal Red Delicious, a sport or mutation produced on a Richared Delicious tree in the orchards of the Columbia & Okanogan Nursery Company, Yakima, Wash. If the new variety becomes as popular as its parent, which in 1951 was awarded the Wilder Medal by the American Pomological Society, it is destined for widespread planting.

The C & O Nursery claims that by virtue of earlier color, the new Red Royal Delicious can be picked earlier, for a high-priced early market, but if the early market is not good, the apples can be stored and kept for a longer time than apples harvested later which often are past their prime because of slow development of color.

VERMONT—Dr. M. B. Cummings of Burlington, widely known horticulturist, passed away recently. Dr. Cummings was head of the department of horticulture, University of Vermont, from 1906-1944. He served as secretary of the Vermont State Horticultural Society for 31 years, retiring from that position in 1938. From 1944 until his death he was state nursery inspector.

Growers are completing (Oct. 15) what will turn out to be the shortest apple crop harvest since 1945, perhaps less than 60 per cent of 1951 production for the state. All grades of McIntosh are in great demand.

Fruit bud development in most sections was much more favorable than a year ago and it is expected that a favorable McIntosh blossom will occur next spring unless other factors intervene.—*C. Lyman Calahan, Sec'y, Burlington.*

CONNECTICUT—Wonderful harvesting weather! Total apple crop is less than last year. Prices are good and the public is buying, so apparently price is not a limiting factor.

Platt Brothers, Milford, have a wonderful crop of Turley Winesap on trees about 15 years of age. Norman and James Barnes harvested about 4,000 crates of pears. The Bosc were nearly perfection.

Sherman Eddy, 75, of Avon, life member of Connecticut Pomological Society, died suddenly. A landscape gardener of outstanding ability, Mr. Eddy was noted for his exhibits at flower shows and the exhibits which he developed at state and New England fruit shows.—*S. P. Hollister, Sec'y, Storrs.*

MISSOURI—The apple crop was light and picked out even less than earlier estimated. Harvesting was completed early and practically the entire crop disposed of on the fresh fruit market at harvesttime.—*W. R. Martin, Jr., Sec'y, Columbia.*

TENNESSEE—The apple crop was cut considerably by drought, and complaints about late brood codling moths came from all sections. One of our more serious and quite general apple troubles was a ripe rot which affected sound apples on trees and even blue ribbon display fruit at regional fairs.—*A. N. Pratt, Sec'y, Nashville.*

The Best of the NEW and OLD Varieties

105 years of nursery know-how to give you the best.

- Apples
- Peaches
- Montmorency Cherries
- Sweet Cherries
- Pears
- Plums

Write today for our Grower's Quantity Price List. If you are a lover of roses, bulbs, peonies, flowering shrubs, and trees, ask for our new fall color catalogue.

THE MONROE NURSERY

Desirable Territories open for salesmen of fruit trees and general stock.

ILGENFRITZ NURSERIES, Inc.
Dept. F.G. Monroe, Michigan

Grow Big, Delicious Fruit On Stark
DWARF FRUIT TREES

Turn a corner of your back yard into a beautiful, profitable home orchard. Exclusive varieties U.S. Patent Process Stark "Dwarf" fruit trees need amazingly little space . . . yet produce abundant extra large, extra delicious fruit to eat, preserve, freeze, can. Cut food bills! Boost property value.

FREE Giant New 1953 STARK BRO'S COLOR PHOTO **CATALOG**

Packed with exciting news about beautiful, hardy Dwarf and Standard Exclusive U.S. Patent and Trade Marked Varieties of fruit YOU can grow. Big section on Shrubs, Roses, Shade Trees to Landscape your home. SEND NO MONEY—Mail today!

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AMERICA'S OLDEST & LARGEST
Dept. 153 LOUISIANA, MISSOURI

FRUIT TREES, BERRY PLANTS AND ORNAMENTALS

Complete line leading varieties plus exclusive Patented Strains available only at Bountiful Ridge. Plant this Fall. One of America's leading Nurseries selling direct and serving the Nation's Planters over 80 years thru three generations, assures satisfaction. Write for free 60 page catalog today.

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For Grafting and Budding
APPLE—CHERRY—PEAR—PLUM
Also complete line fruit trees, berry plants, and grape vines. Write for price lists.
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Tualatin Quality Tree name Oregon
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OVER 50 YRS OF GROWING, P.O. BOX 310 SHERWOOD OREGON

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Write to:
TYSON ORCHARD SERVICE
A Complete Line of Orchard Tools Equipment and Chemicals
FLORA DALE . . PA.

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Only 25c a Word—CASH WITH ORDER. Count each initial and whole number as one word. ADDRESS AMERICAN FRUIT GROWER, 106 Euclid Ave., Willoughby, Ohio.

CHAINS

CHAINS, TRACTOR, TRUCK, ROAD GRADER, BUS. Write for circular, give tire sizes, prompt shipment. HORNER TRACTOR SALES, Geneva, Ohio.

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CIDER AND WINE PRESSES, HAND AND HYDRAULIC, new and rebuilt. Repairs and Supplies, Clarifiers and Filters. Bottling equipment. Write for supply catalogue. W. G. BUNKLES MACHINERY CO., 185 Oakland St., Trenton, New Jersey.

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DIRECT FROM IMPORTER. HIGHEST QUALITY German made pruning shears, knives, etc. at wholesale prices. Request illustrated list. EXCELSIOR, 227 Coolidge Ave., Fort Lee, N. J.

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GOOSE BOOKLET for TWELVE CHAPTERS, COVERS all subject. Goose and Duck incubators. Pilgrim and Chinese geese. Circular free. GOSHEN POULTRY FARM, Goshen, Indiana.

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BIG PROFITS WEAVING RUGS. SEND 10c FOR our catalog, sample card, and low prices on carpet warps, rug filling, looms, parts, inexpensive beam counter. If you have a loom, give make and width please. OR RUG COMPANY, Dept. N223, Lima, Ohio.

MISCELLANEOUS

LATEST WALNUT CRACKER. DIRECT FROM MANUFACTURER. BENN THOMPSON, Harrisonburg, Virginia.

ORANGES AND GRAPEFRUIT

ORANGES OR GRAPEFRUIT OR MIXED — $5.95 Bushel. Express Prepaid. Guaranteed. Add 10% west of Mississippi River. HAMMERSTEIN GROVES, Hollywood in Florida.

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NATIONAL TRADE MARK COMPANY, MUNSEY BUILDING, Washington, D.C.

WANTED—EQUIPMENT & SUPPLIES

WANTED: TWO WHEEL TRAILER TYPE BRUSH chipper. Write stating price and make. C. SYLVESTER, Goshen, Indiana.

TRAMPLING OUT THE VINTAGE

By Joseph A. Cocannouer

A powerful story of farming on poor, overworked and eroded soil. The tragedy of creatures of habit and custom who refuse to accept modern soil management and to their own ultimate destruction is the theme of this inspiring and interesting book. Joe Cocannouer, the author, is the Father of our present system of teaching vocational agriculture in our public schools. Many families which the author describes have their counterparts in every agricultural community. No one can read this book without becoming a better farmer and converting the bitter vintage of grapes into sound and mellow fruit.

Sent postpaid on receipt of $2.75

AMERICAN FRUIT GROWER

Willoughby, Ohio

APPLE BLOTCH

(*Continued from page* 14)

blister-like spots, one-sixteenth to one-eighth inch in diameter, which gradually increase in size and develop fringe-like margins. Eventually the spot may develop a dark sunken center studded with protruding dark fruiting bodies. Blotch lesions involve only the outer layers of the fruit tissue and, although the fungus does not rot the tissues, its presence interferes with the normal development of the fruit. Apples with several spots are apt to be so badly distorted that they are unmarketable.

On twigs of the current season's growth the fungus forms tiny, brown, elliptical cankers. They are particularly numerous on water sprouts but may appear on any of the succulent shoots. Spores ooze from fruiting bodies formed in these cankers the following spring and start anew the cycle of leaf, fruit, and twig infections. These cankers continue to enlarge during the second and third summers following their formation and spore production may continue for at least three seasons before the fungus dies.

Control. Control of the disease obviously centers about the elimination of the cankers, for these serve to carry the fungus over the winter. The first step is to use disease-free stock when planting an orchard, for the disease can be introduced into an orchard by the planting of infected trees. Newly planted trees should be examined every year and small twigs with cankers should be cut off and cankers on the older limbs or the trunk cut out with a knife.

On older bearing trees the water sprouts should be removed every season. However, their removal, plus elimination of cankers on branches removed by regular pruning, will not eradicate the disease. In any given season cankers on wood formed during the two or three previous seasons continue to produce spores and most of these on the older branches will not be removed by normal pruning.

In addition to the removal of the cankers by pruning, the trees should be sprayed with ferbam, two pounds to 100 gallons of water, or Bordeaux mixture, 2-4-100, starting two weeks after the petals have fallen, followed by two additional applications at intervals of three weeks.

If properly applied these sprays protect the leaves and fruit and prevent the formation of cankers on the current season's twigs. However, since cankers formed two and three years previous are still active, the spray program must be carried on for at least three and preferably four years. It is possible to eliminate the disease from an orchard by consistent, careful spraying for four successive seasons.

John C. Dunegan, USDA

Fruit Growing is Such Fun!

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Eljer Vitreous China Fixtures keep that new look because the glass-like surface resists scratching, stains and the effects of all ordinary acids. The lustrous, enamel finish of Eljer tubs and sinks is fused on a *rugged, rigid, cast-iron base.* Whether you prefer fixtures in white or one of Eljer's beautiful pastel shades, you can be sure of a harmoniously matching set.

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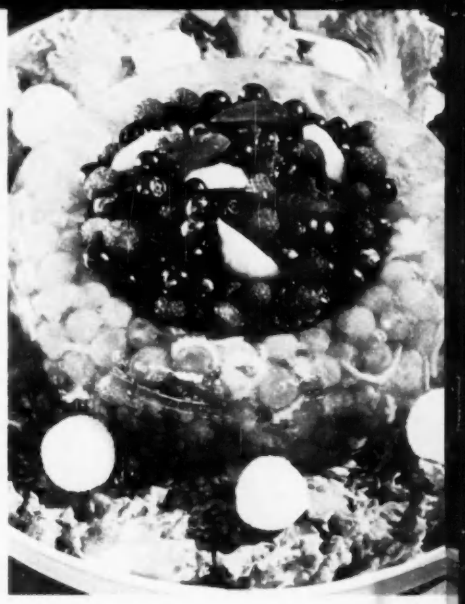
The Orchard Home



CRISP BREEZES and the coming holiday season conjure up visions of bounteous dinner tables and fireside suppers when the family and friends settle down for their favorite TV program. Embellished with sprightly fruit salads which can serve as colorful accompaniments to the dinner course or as main dishes for suppertime, these meals can be attractive as well as healthful.

The illustration shows a salad which has just such appeal. Table grapes, available on the market at this time, lend freshness to the molded salad, while pears, which are available in fresh form the year round, make a suitable fruit for the center of the mold. The orchard woman need go no farther than her well-stocked food freezer for a selection of other fruits, such as unsugared strawberries, raspberries, cherries, blueberries, etc., to complete the picture. When served as a suppertime dish, nut bread makes a splendid addition.

The recipe for the molded salad is as follows:

SEEDLESS GRAPE RING

1 tablespoon gelatin
¼ cup cold water
1 cup boiling water
⅓ cup sugar
⅓ cup lemon juice
1 teaspoon vinegar
½ teaspoon salt
2 drops Worcestershire sauce
2 cups seedless grapes
1 cup diced celery
Lettuce
Cream cheese balls
Salad dressing

Soften gelatin in cold water; dissolve in boiling water. Add sugar, lemon juice, vinegar, salt, and Worcestershire sauce. Chill until slightly thickened. Fold in grapes and celery. Pour into an 8½-inch ring mold and chill until firm. Unmold on a bed of lettuce. Fill center with fresh or fresh-frozen fruit and surround ring with balls of cream cheese. Serve with your favorite salad dressing.

Why not try the following salads and fruit recipes this month:

CRANBERRY ORANGE RELISH

4 cups raw cranberries
1 orange
3 or 4 tart, red apples
2 cups sugar

Wash cranberries and peel orange; remove membrane. Put cranberries, orange sections and rind, and cored apple through food chopper. Add sugar and let stand a few hours before serving with your Thanksgiving turkey.—Mrs. H. B. Bass, Roanoke, Texas.

WALDORF SALAD

3 medium-sized apples, diced
2 tablespoons lemon juice
1½ cups diced celery
¼ cup nuts meats (optional)
¾ cup cooked fruit juice dressing
Crisp lettuce

Use firm apples. If skins are red and free from blemishes, they need not be pared. Sprinkle apples with lemon juice and combine with celery, nuts, and dressing. Toss lightly and serve on crisp lettuce.

Cooked Fruit Juice Dressing

2 egg yolks
¼ cup sugar
¼ cup pineapple juice
¼ cup orange juice
2 tablespoons lemon juice
½ cup sour or sweet cream

Beat egg yolks. Add sugar and stir until well blended. Combine with fruit juices in top of double boiler and cook, stirring constantly, over hot (not boiling) water until slightly thick, about 8 to 10 minutes. Cool and fold in whipped sour or sweet cream. This makes about 1 cup dressing.—Mrs. Ray Westphal, West Allis 14, Wis.

APPLESAUCE COOKIES

½ cup shortening
½ teaspoon salt
1 cup sugar
1 egg
1½ cups thick applesauce
2¼ cups sifted flour
1 teaspoon soda
½ cup chopped nut meats
½ teaspoon nutmeg
½ teaspoon cinnamon

Blend shortening, salt, soda, spices, sugar, and egg together. Add applesauce and sifted flour. Drop by spoonfuls on greased cooky sheet and bake at 350° F. about 15 minutes. Makes 3 dozen cookies.—Mrs. Harley B. Clark, Carthage, Mo.

APPLE SQUARES

2 eggs
1½ cups sugar
1 cup flour
2 teaspoons baking powder
½ teaspoon salt
1 teaspoon almond extract
1 cup chopped nuts
2 cups diced apples

Beat eggs and add remaining ingredients in order given. Bake in shallow pan in a moderate oven, 350° F., 30 minutes.—Mrs. W. C. Dean, North Scituate, R. I.

THE SEW-EASY SKIRT

Your separates wardrobe should contain several full skirts, all from the same pattern, looking new and different each time in lavish quilted fabrics or wool plaids. Shown here, Advance Pattern 5973, the four-gored skirt with high curved waistband and a simple cap-sleeved blouse with jewelry neckline. Size 14 requires 3½ yards of 42-inch material (2⅞ yards of 54-inch) without nap for skirt, ⅝ yard extra for matching plaids; 1⅛ yards of 39-inch fabric for blouse (long-sleeved blouse with collar 1⅜ yards of 54-inch.) Sizes 12 to 18. Price 35 cents.

Send order and cash for patterns to Pattern Department, American Fruit Grower, Willoughby, Ohio. Be sure to specify size. Print name and address clearly.

American Fruit Grower
• Fruit for Health •
RICHARD T. MEISTER, *Editor*
H. B. TUKEY, *Associate Editor*

Get Behind Appalachian Growers

THE ACTION of the FTC in bringing price fixing charges against Appalachian Apple Service and five processors is a blow at all grower associations which provide marketing information to members. Conceivably, all fruit grower associations could be charged in a similar fashion since marketing is part of the agenda at nearly all fruit meetings; and anything along this line, by the remarkable reasoning of FTC agents, is an attempt to influence prices and thereby against the law. As reported by our Washington correspondent on page 15, the fruit industry is fortunate indeed that the Appalachian growers will carry the banner for all growers against the arbitrary and dogmatic action of the Federal Trade Commission.

Already the Wenatchee Valley Traffic Association has gone on record with a resolution protesting the FTC complaint as a presumptuous and unreasonable assault that would seem to deny farmers the right of getting together to discuss marketing problems. The power of public opinion is not to be ignored, and all grower associations are urged to make their feelings known. Letters and telegrams to congressmen asking that their protest be forwarded to the FTC would help to stir up a wave of feeling from the four corners of this country that could not help but be impressive and serve to make the commissioners aware of the broad and far-reaching aspects of their action.

But the reasoning behind the FTC complaint against the apple growers is only a small piece in a larger and more complex puzzle. In one hand the government holds out to farmers money and professional help to foster co-operation, while the other hand is striking down the co-operative effort. While one branch of the government at great cost prepares market reports listing daily prices of fruits, another branch forbids growers to inform themselves about market conditions. The right of labor to bargain collectively is carefully protected, yet this right is withheld from the grower.

To reach these conflicting ends, thousands of laws are ground out in Washington, setting up endless bureaus to issue regulations and continually change these regulations so that no farmer can find his way out of the legal labyrinth built by government planners.

At the time the FTC issued its complaint there were three sets of government inspectors checking Appalachian growers. Our forefathers protested against similar harassments at the time of the battle for independence with this indictment: "He has erected a multitude of New Offices and has sent hither sv arms of Officers to harass our people and eat out their substance."

These difficulties will not correct themselves. We must join together with the Appalachian growers to fight and protect our grower organizations which are the backbone of our industry and our hope for the future welfare of men of the soil.

Fruit Production at a Glance

	Average 1941-50	1951	USDA Oct. 1, Est. 1952
	Thousand Bushels		
Apples	110,379	110,660	95,975
Eastern	46,502	52,788	41,260
Central	19,301	24,342	14,211
Western	44,576	33,530	39,975
Peaches	68,186	63,627	62,622
Cling., Calif.	19,506	24,544	19,085
Free., Calif.	11,193	11,334	10,918
Pears	30,306	30,028	30,879
	Tons		
Apricots	228,740	183,200	174,000
Plums	84,060	110,800	63,800
Prunes (dry) Calif.	183,700	177,000	135,000
Grapes	2,807,710	3,385,800	3,092,000
Almonds	31,140	42,700	35,300
Walnuts	69,770	77,400	80,100
Filberts	7,021	6,920	11,550
Pecans	123,206	154,895	127,256
Improved	54,026	86,660	64,187
Wild & Seedling	69,180	68,235	63,069
	Barrels		
Cranberries	769,660	910,300	812,500

Fruit Talk

Apple production in **Argentina** is about equal to **New York State** (12-14 million bushels), pears about that of Washington State (five and one-half to six million bushels), and peaches that of **Michigan** (three and one-half million bushels).

Weddling, Riehl, and **Rhoads** of Riverside, Calif., suggest that at least part of the decrease in percentage of soluble solids in juices of citrus fruits following oil spray applications, may be due to reduction in photosynthesis.

The index of **hourly earnings** of persons engaged in marketing of farm products was 94 in 1936 and 254 in 1951.

Writes **Rory Collins** of **Hood River, Ore.,** which indicates the fine spirit that exists in the fruit industry: "We visited important pear districts of **California** where we had an opportunity to converse with leaders who are forward thinking, intelligent, inquiring, and open minded, who showed us every courtesy and co-operation in our exchange of ideas."

Carlsen and **Stokes** conclude that it is economically feasible to prepackage high quality apples at point of shipment provided the additional expense for packaging materials is kept at a minimum. They have devised an inexpensive and satisfactory bagging shoot. Labor costs on many of the bagging operations were below those of the standard box pack, but the additional cost of the bags made it more expensive to prepackage apples than to bulk them in boxes.

Apricot production is about the same as 20 years ago, but fresh use is about **double** that of 1929.

Abraham Fahn of the **Hebrew University, Jerusalem,** has added considerable to the scant data available on floral nectaries and nectar secretion. The amount of nectar secreted is correlated with the volume of nectiferous tissue. It is secreted variously in different plants—through swelling of outer cell wall and rupture of the cuticle, through stomata, and by diffusion through thin cell walls.

Approved **soil conservation practices** on American farms in 1950 received payments of $209,643,245.

Clusters of **Thompson Seedless** grapes were larger, developed larger berries, and shattered less following treatments made with 4-chlorophenoxyacetic acid, by **Weaver** and **Winkler** of **Davis, Calif.**

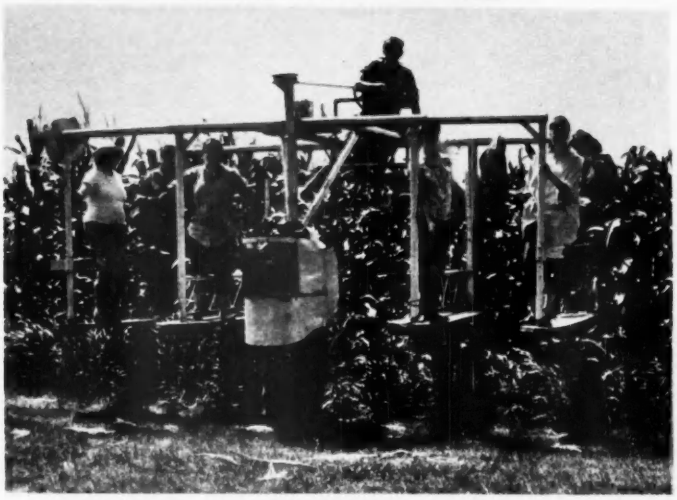
Per capita consumption of **frozen berries** increased **four-fold** between 1937 (.29 pounds) and 1941 (1.28 pounds) while canned berries held their own (.25 and .30 respectively). —H.B.T.

Coming Next Month

- Successful Pruning Principles
- New Orchard Pruning Equipment
- Convention Time Is Here Again!
- Chain Saws Are Time Savers

"FOR AIRCRAFT OR ONE CYLINDER DETASSELERS— OUR FIRST CHOICE IS CHAMPION!"

—says Mr. Carl Thorp (R) shown here with his father, C. W. Thorp and brother, Ernest, on the C. W. Thorp and Sons farm near Clinton, Ill.



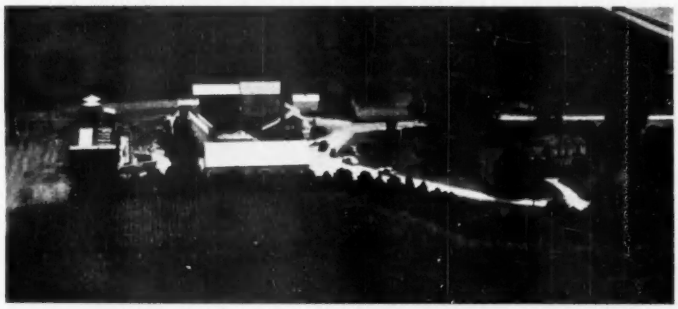
Self-powered detasselers—the granddaddy-long-legs of farm equipment—creep through the corn fields as workers remove the tassels from stalks in the cross breeding process.

C. W. Thorp and Sons, an associate of the well known Funk Bros. Seed Co. of Bloomington, Ill. produces, processes and merchandises some seven varieties of hybrid seed corn. The Thorps operate in four counties maintaining over 500 acres in seed corn production. About half of this is on their own farm and the balance is on land under contract. Other crops—oats, wheat and soy beans—are grown on the rest of the 650 acres operated by Thorp.

This specialized type of farming requires many units of motorized equipment. Their engines range in size from the one cylinder plants that power the slow moving detasselers up to the engines of the Cessna and Beech aircraft.

Carl Thorp, an active member of Flying Farmers, says—"Farm equipment is always busy equipment. Our machines, trucks and tractors have to be ready to go on a minute's notice and keep going day after day without engine failure. Our planes log many hours as we observe crop progress and spot our crews for their work in the fields.

"We know the importance of spark plug performance in keeping all of our equipment running properly. Experience over the years has given us a definite preference for Champion Spark Plugs. They're our first choice for dependability, long life and operating efficiency in every type of engine."



This group of buildings includes grain storage, warehouse, processing and equipment facilities.

Dependable

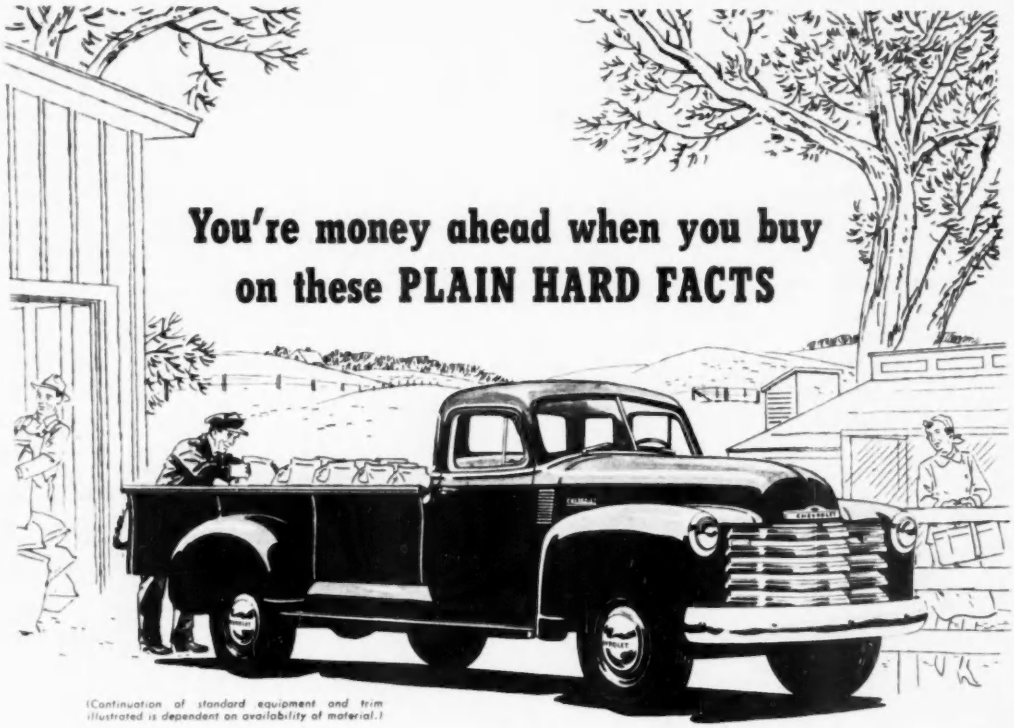
CHAMPION

Spark Plugs are Worth Asking for BY NAME

Mr. Carl Thorp and the Bonanza ready for an inspection flight over the Thorp properties.

Pattern formed by detasseled corn rows in a Funk G hybrid seed corn production field.

Part of the Champion-equipped fleet that sees rugged service on the Thorp farm.



(Continuation of standard equipment and trim illustrated is dependent on availability of material.)

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Here are the facts—the plain hard facts—about Chevrolet trucks. Here are the reasons why more people own and operate Chevrolet trucks than any other make! Chevrolet's low purchase price . . . Chevrolet's on-the-road performance . . . Chevrolet's on-the-record ability to work for rock-bottom wages in terms of fuel and maintenance. All are good sound reasons why Chevrolet is the favorite of farmers across the nation. But be your own judge. Check the facts. Then see your Chevrolet dealer for America's top truck value! Chevrolet Division of General Motors, Detroit 2, Michigan.

Fact No. 1

Save Money on Purchase Price

Stack up a Chevrolet truck against *any other truck* capable of handling the same payloads. You'll find the Chevrolet truck lists for less. And it brings you ruggedness, stamina, and great truck features.

Fact No. 2

Save Money on Job Efficiency

Chevrolet trucks are factory-matched to your payload requirements. Frame, axles, springs, body, brakes, and power are part of a well-balanced team that does the job at lowest cost.

Fact No. 3

Save Money on Operating Costs

Chevrolet trucks cost least of all to own and maintain. Valve-in-Head economy saves on gas. Chevrolet's special 4-way engine lubrication system reduces wear, keeps oil costs low. Upkeep costs are held to a minimum.

Fact No. 4

Save Money on Lower Depreciation

Chevrolet trucks traditionally bring more money at re-sale or trade-in than any other make of trucks which cost about the same when new. Chevrolet's market value stays *up* because the value stays *in*.

CHEVROLET first in demand in value in sales